



November 2013

Lactarius Notebook 28

L. R. Hesler

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LACTARIUS PLUMBEUS Fr. sensu Peck

(see: New York State Mus. Ann. Rept. 38: 127. 1885 and Ann. Rept.
23: 119. 1873

Description by Peck from Fries

Pileus 5-13 cm broad, fuliginous or brownish-black, convex then infundibuliform, dry, unpolished, minutely tomentose, apparently glabrescent. Context white compact. Latex white, unchanging, acrid.

Lamellae crowded, rather narrow, white or yellowish.

Stipe 4-7.5 cm long, 6-12 mm thick, equal, paler than the pileus.

Notes by Hesler

Spores 6-8(8.5) x 5-5.5 μ , warts 0.2-0.5 μ high, bands forming a partial reticulum. Basidia 37-42 x 7-8 μ , 4-spored. Pleurocystidia 36-43 x 6-8 μ , subclavate and sub-capitate, widely scattered, rare, granular; pseudocystidia filamentous; cheilocystidia 28-36 x 5-8 μ , similar to pleurocystidia, rather rare. Gill trama of undulating hyphae; subhymenium of small cells. Pileus trama vesiculose. Pileus cuticle a trichodermium of brownish, tangled, dry hyphae. Stipe cuticle of repent, dry hyphae; rosettes few. Clamps none.

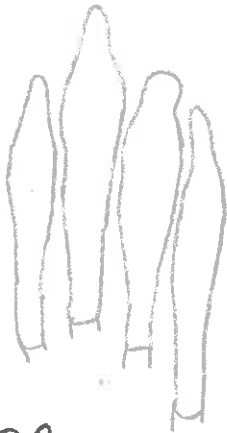
Reported once by Peck (1873 and 1885) from Catskill Mts., New York, from hemlock woods, under spruce and balsams trees. He states that the pileus color varies from blackish-brown to pinkish-brown and grayish-brown.

Burlingham (1908: 29) says Peck's specimens differ from the typical form (of L. plumbeus) in color and in the presence of a tomentum in the fresh condition. She doubts that Peck's material represents L. plumbeus.

Kühner and Romagnesi (1953: 475) list L. plumbeus as a synonym of L. turpis Fr. ex Weinm. It is certain that Peck's collection is not L. turpis (= necator)

Dennis, Orton, & Hora (1960: 95) also list it as a synonym of turpis.

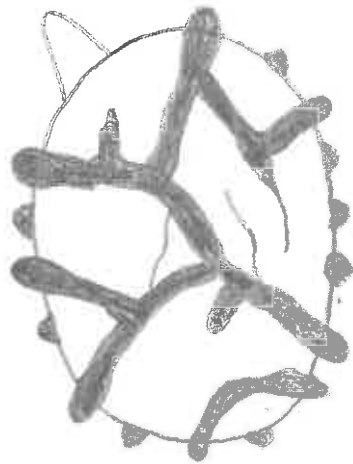
Pactaricus plumbeus Fr sensu Peck
ex-Herb Peck: leg. Catskills, Oct. 1871



Pl. - x 1000



Ch. - x 1000



Spore - x 8000

LACTARIUS PORNINSIS

(from Neuhoﬀ)

L. porninsis Roll.

= L. aurantiacus S. Bres., Neuhoﬀ (1942)

Pileus 3-7(10) cm, orange-yellow to orange-red, crowded watery-zonate, frequently azonate, viscid, margin wavy. Context firm, rather elastic, pallid or whitish. Latex sparse, white or watery white, unchanging, mild but after a time somewhat bitter, at most stinging the tongue, and slightly irritating the throat.

Lamellae crowded, up to 5 mm broad, scarcely forked, at first pale ocher, then dull ocher-orange, not spotting.

Stipe 3-6 cm x 5-15 mm, glabrous, pale orange, then dingy honey-colored, with ocher-yellow spots, hollow, flesh orange-ocher.

Spores D, 7.5-9.5 x 6-7.5 μ . Basidia 40-50 x 8-9 μ , 4-spored. Pleurocystidia 45-60 x 5.5-7 μ .

25113

LACTARIUS PORRINUS Rolland

Under Larix, Jerzens, Austria, Moser, September 7, 1962.

Spores 7-9 x 6-7 μ . Pleurocystidia same as cheilocystidia
extending up sides 100-250 μ ; pseudocystidia, cheilocystidia, *present*;
~~and~~ cuticle (80-120 μ thick) gelatinous. Otherwise same as 25113~~f~~
Stipe cuticle of dry, repent hyphae; rosettes present.

25114

LACTARIUS FORNINSIS Rolland

Under Larix, Tyrol, Moser, September 2, 1962.

Spores 7.5-9(10) x 6-7(7.5) μ , ellipsoid, more rarely subglobose, warts short, with an imperfect reticulum of more or less nodulose bands and lines. Basidia 50-58 x 7-9(10) μ , (2)4-spored. Pleurocystidia none, except a few cheilocystidia (Kühff says sparse); extending 120-150 μ above edges; pseudocystidia filamentous; cheilocystidia 27-42 x 4-6 μ , more or less fusoid to subclavate, granular. Gill trama of irregular cells. Pileus trama vesiculose. ^{Pileus} Cuticle a narrow (40-60 μ) ^{irregular} gelatinous zone, with a ^{Sho cuticle dry; no netter present} more or less distinct brownish hypodermium. Caulocystidia 17-48 x 4-6 μ , cylindric to ventricose or clavate, forming more or less of a turf. Clamp connections none.

Factarius prominis Rolland
25114 (Austria)

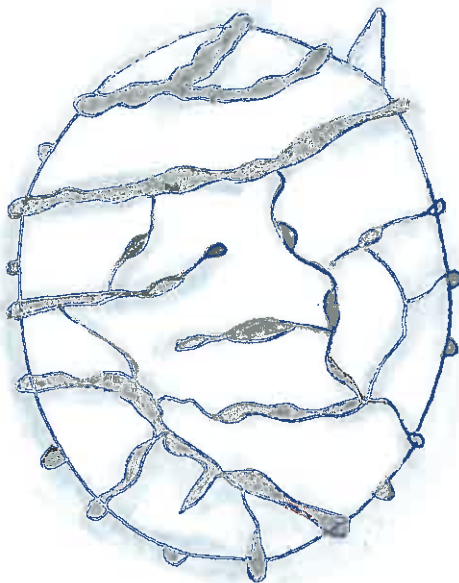


Sp - x 1000

(mostly near edge - 125-
150 μ above)



Ch - x 1000



H68

Spore - x 8000



Carlo -
x 1000
(\pm turf)

30373

LACTARIUS PORNINSIS Rolland

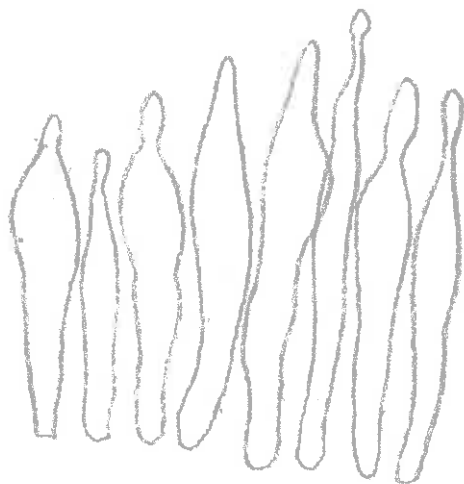
In forest of Larix leptolepis, Nugata-pref., October 4,
1964 (ex-Herb. Hongo).

Spores $7.5-9.5 \times (5.5)6-7.5 \mu$, ellipsoid, warts
very short, with lines and more or less nodulose bands
forming more or less of a reticulum. Basidia $43-50$
 $\times 8-10 \mu$, 4-spored. Pleurocystidia $38-60 \times 5-9 \mu$,
ventricose, apices tapering, acute or subcapitate,
granular; pseudocystidia filamentous; cheilocystidia
 $27-35 \times 3-6 \mu$, ventricose or subfusoid. Gill trama of
cells. Pileus trama vesiculose. ^{Pileus} Cuticle a gelatinous
zone, $60-75 \mu$ thick. *Stipe cuticle dry.*

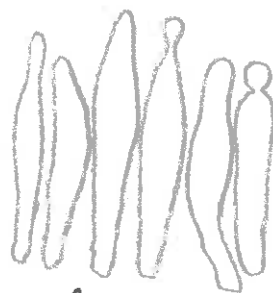
Cf. 25114.

Factarius porcinus Lalland

30373



Pl - x 1000



Ch - x 1000

[Spores as in
25114 from
Austria]

80364
Sm - ~~803464~~ LACTARIUS PORNINSIS Roll.

Near Alp-Green, Switzerland, August 30, 1971 (labelled:

porninsis
L. ~~porninsis~~). (No notes).

Notes by Hesler

Spores 7-9.5 x 6-7.5 μ , warts short (0.2-0.3 μ or less), bands more or less nodulose, medium narrow, and lines, forming a partial or at times nearly complete reticulum. Pleurocystidia 42-58 x 4-6 μ , slender-ventricose-acuminate, rarely and widely scattered except common near edges; cheilocystidia 26-34 x ϕ 3-5 μ , similar, rather abundant. Pileus cuticle an ixocutis. Stipe cuticle of dry, repent hyphae; rosettes present.

16194

LACTARIUS PRAEZONATUS Murr.

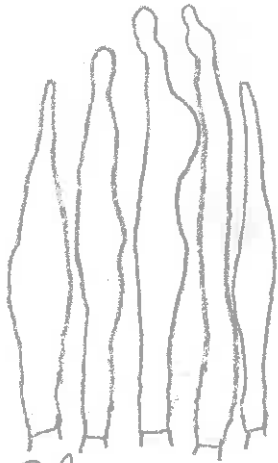
Near evergreen oaks and loblolly pines, near Gainesville, Florida,

October 1, 1942

Type (F-11900)

Spores 8-9.5 x 7-8 μ , slightly yellowish, ellipsoid, warts 0.5-0.8 μ high, with a reticulum of broad bands. Basidia 38-46 x 9-11(12) μ , (2)4-spored. Pleurocystidia 45-57 x 4-8 μ , ventricose to subcylindric, rather rare and inconspicuous, apices usually tapering and often subcapitate; pseudocystidia 3-6 μ broad, brownish, cylindric or subclavate, rare and inconspicuous; cheilocystidia 25-48 x 3-6 μ , more or less ventricose to subclavate or subcylindric, apices tapering, not or scarcely capitate, scattered. Gill trama cellular. Pileus trama vesiculose. Pileus cuticle a zone, 50-90 μ thick, of gelatinous ~~hyphae~~ hyphae; pileocystidia scattered or in small tufts, hypodermium present. Stipe cuticle of repent, dry hyphae; caulocystidia 16-37 x 2-4 μ , cylindric or subventricose, scattered or in small tufts. Clamp connections none.

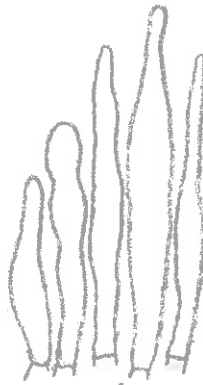
Factarius praezonatus Thurr.
Type



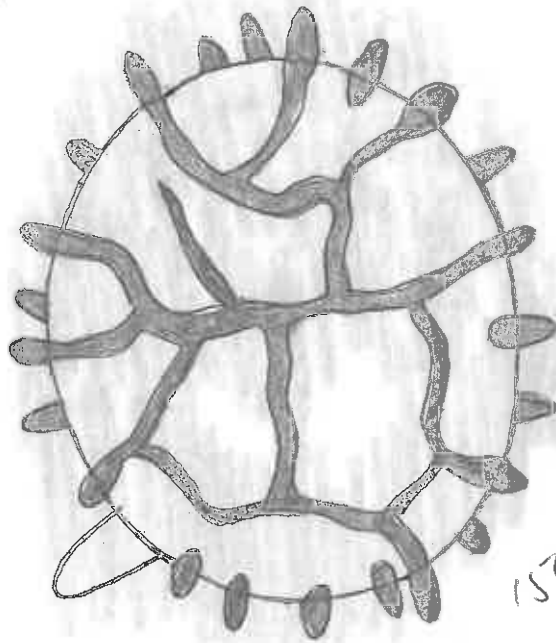
Pl - x 1000



Pseudo - x 1000



Ch - x 1000



Spore - x 8000



Cauds - x 1000

1556

18462

LACTARIUS PRAEZONATUS Murr.

Near Gainesville, Florida, October 6, 1946.

(Not the Type)

Spores as in Type. Pleurocystidia 35-46 x 4-7 μ , ventricose, subcylindric; cheilocystidia 32-38 x 4-6 μ , ventricose or subcylindric. Pileocystidia 20-38 x 2-5 μ , cylindric to ventricose--similar to caulocystidia in Type. ^{Pileus} Cuticle gelatinous zone 30-80 μ thick.

Agrees with Type.

Never published
No notes in latex

LACTARIUS PRESTONENSIS Morgan sp. nov.

Leg. A. P. Morgan, Preston, Ohio, August 14, 1906; material deposited in Morgan Collection, University of Iowa. (*Herbarium name only*)

(Borrowed and studied, February, 1971)

Spores 9.5-11 x 8-10 μ , globose or subglobose, warts 0.8-2.0 μ high, bands 1 or 2, sparsely branched, with a few lines. Basidia unfit for study. Pleurocystidia and cheilocystidia not found. Pileus cuticle a loosely organized, subgelatinous epithelium, bearing scattered to pyramidal tufts of colorless pileocystidia, 18-26 x 2-4 μ , cylindric to subclavate. Stipe cuticle similar to that of the pileus; rosettes and clamp connections none.

The basidiocarps have been eaten by insects, and are unfit for a critical study.

This entity was never published, and there were no notes with the collection on the latex or other characters in the fresh state. It is, therefore, difficult to guess to which section it belongs. If the latex become yellow, it might be related to L. obnubiloides (Sect. Theiogali); otherwise I would make no guess.

The pileus (dried) is a dull brown with a tint of olive; the gills are distant.

Ractarius prestonensis A.P. Morgan
(not described; herbarium
name only)



Spore x 8000

LACTARIUS PROXIMELLUS Beards. & Burl.

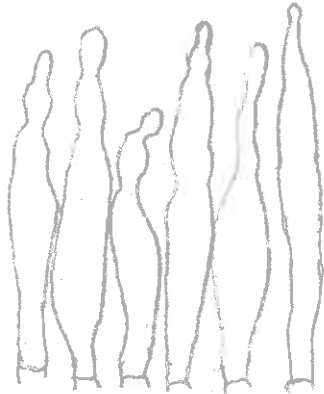
In sandy soil, under black and live oaks, Longwood, Florida, November
29, 1937

Type

Spores white or whitish in deposit, $7.5-9.5 \times 6.5-7.5 \mu$, ellipsoid to subglobose, warts $0.4-0.7 \mu$ high, with broad bands and fine to coarse lines forming a reticulum. Basidia $38-45 \times 8-10 \mu$, 4-spored. Pleurocystidia $35-46 \times 6-8 \mu$, ventricose, apices slender and often moniliform or constricted and capitate, not granular, very inconspicuous and found only on lower one fourth of the gill; cheilocystidia $24-40 \times 4-7 \mu$, similar, often absent in a section, not granular. Gill trama of short-celled hyphae. Pileus cuticle a gelatinous zone, an ixocutis, $75-125 \mu$ thick, with more or less pyramidal mounds of hyphae (pruinose condition, seen on surface), often with lactifers, the zone resting on an indistinct, brownish hypodermium. Stipe cuticle of dry, repent hyphae, bearing scattered caulocystidia $15-22 \times 3-5 \mu$, cylindric to ventricose, in small tufts (as pruinose-condition, as seen with a lens or naked eye); rosettes present. Clamp connections none.

Lactarius proximellus Beards. + Burl.

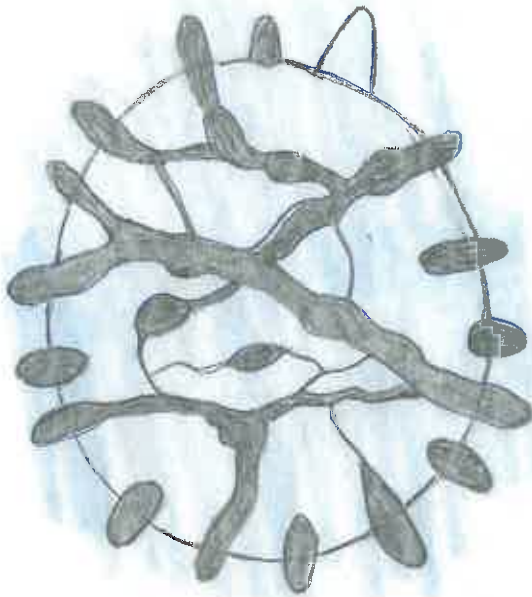
Type



Pl. $\times 1000$



Ch. $\times 1000$



Spore $\times 8000$

1103



Caulo-tuft
 $\times 1000$

16195

LACTARIUS PROXIMELLUS

Keystone Heights, Fla., leg. Murrill, Jan. 26, 1941

Notes on Murrill's Collection

(Collected Jan. 26, 1941; not the Type)

Spores 8-10 x 7-8 μ , ellipsoid, some subglobose, reticulate-verrucose, warts .5-.7 μ high. Pleurocystidia 43-52 x 5-6 μ , inconspicuous, few, fusoid, mostly buried entirely, rarely projecting 10-12 μ ; cheilocystidia 37-48 x 4-6 μ , clustered, prominent, fusoid. Epicutis a gelatinous zone, 85-140 μ thick.

Sm-37386

LACTARIUS PROXIMELLUS Beards. & Burl.

Gregarious under sweet-fern, Topinabee, Michigan, August 4, 1951

Notes by Smith

Pileus 3-6 cm broad, broadly convex with a depressed disc, expanding to broadly vase-shaped, surface glabrous, viscid when wet, zonate, zones "mikado brown" to "cinnamon," paler between, margin glabrous. Context near "pinkish buff", acrid. Latex white, unchanging, but staining gills and flesh dingy olivaceous.

Lamellae crowded, narrow, short-decurrent, "pale pinkish buff" becoming "light pinkish cinnamon" or darker, many tiers of lamellulae present, staining dingy olivaceous.

Stipe short, 2-2.5 cm x 1 cm, narrowed below, soon hollow, dry and unpolished, dingy vinaceous cinnamon when bloom is rubbed off.

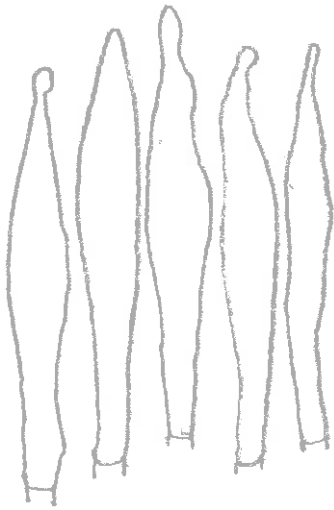
~~Spores white in deposit.~~

(Smith says he made drawings of spores and cystidia.)

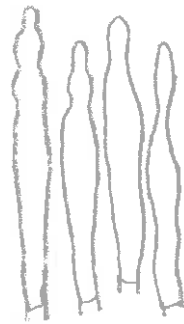
white or whitish in deposit,
Notes by Hesler

Spores $7-9.5 \times 6.5-8 \mu$, warts $0.4-0.7(1.0) \mu$ high, bands and lines forming a partial reticulum. Basidia $38-43 \times 7-10 \mu$, 4-spored. Pleurocystidia $48-58 \times 6-9 \mu$, subventricose, acuminate or tapering to a capitellum; cheilocystidia $34-40 \times 3-5 \mu$, slender-ventricose, apices often slightly moniliform or subcapitate. Gill trama of ~~small cells.~~ *short-celled hyphae.* Pileus cuticle an ixocutis; hypoderm brown. Stipe cuticle of dry repent hyphae; rosettes present.

Pectarius proximellus Beards. & Burl.
Sm. 37386



Pl. x 1000



Pl. x 1000

Term-37231
Sm-64276

LACTARIUS ~~PSEUDOLACTARIUS~~ sp. nov.

PHOTO

psammicola v. *glaber* var. nov.

Cespitose, gregarious, Sharon Hollow, (Mich), (Mich), September 15, 1961
(near L. insulsus).

Notes by Smith

Pileus 5-12 cm broad, disc depressed, margin arched and inrolled, margin only faintly pubescent when young, expanding to broadly infundibuliform, viscid, zonate, "pinkish cinnamon" alternating "pinkish buff" or more ochroleucous, some matted, short tomentum which marks the zones (overall coloration near ochraceous buff to orange buff) at times with watery spots on disc. Context near pale pinkish buff but dingy, not white; odor fungoid, taste slowly very burning acrid. Latex white, unchanging.

Lamellae decurrent, "light ochraceous buff," not spotting in aging, the edges becoming slightly darker, close, narrow.

Stipe 3-8 cm long, 15-25 mm thick, dingy ochraceous, equal, dry, unpolished, at times faintly scrobiculate, hoary-pallid at ~~the~~ first, becoming hollow.

Spore deposit near "light ochraceous buff."

Notes by Hesler

Spores in deposit near "light ochraceous buff," 7.5-9.5 x 6-8 μ , ellipsoid, warts 0.4-1.0 μ , a few warts larger (broader) and partially non-amyloid, sterigmatal appendage not always conspicuous. Basidia 46-55 x 8-10 μ , 2-4-spored. Pleurocystidia none (only as cheilocystidia near edges); 37-42 x 4-7 μ , ventricose, apices subcapitate; pseudocystidia 1.5-3 μ broad, often aciculate scattered; cheilocystidia

27-38 x 3-5 μ , cylindric, subventricose, at times the tip crooked, usually not abundant. Gill trama of undulating, subparallel hyphae. Pileus cuticle an ixocutis, the zone, 120-260 μ thick, of slender, gelatinous hyphae which extend periclinally (circumferentially). Stipe cuticle of dry repent hyphae; rosettes present. Clamp connections none.

(1) It is related to L. porninsis in which the pileus colors are orange-yellow to bright orange-red, zoned by darker narrow bands, the taste bitter then slightly acrid. (2) Related to L. zonarius in which pleurocystidia are present over the surface, and the spores smaller. (3) Related to L. insulsus in which the stipe is viscid, the pileus margin is soft-tomentose, the stipe flesh slowly becoming pink. (4) To L. zonarioides also soft tomentose margin; lamellae become olive-green spotted; the spores larger; pleurocystidia present. (5) To L. evosmus K. and R. in which the odor is fruity, margin not conspicuously tomentose-pubescent.

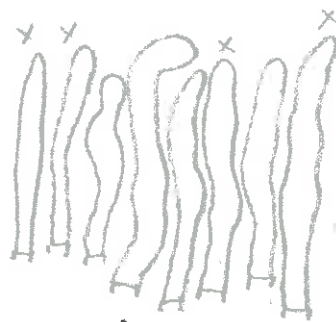
Thus, it seems nearest L. zonarius in which stipe flesh slowly turns dingy gray different pleurocystidia and cheilocystidia, and the spore-ornamentation differs (warts average shorter in zonarius), and in 64276 (pseudozonarius) the spores show some webbing, and some warts are only partially amyloid.

Pactarius ~~*americanus*~~ ^{*pseudonarius*} sp. nov.

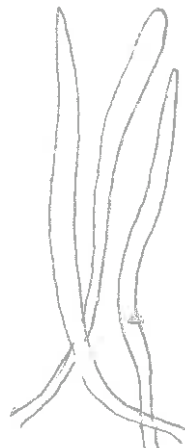
Sm - 64276 *psammicola* v. *glaber*
(Tenn - 37231)



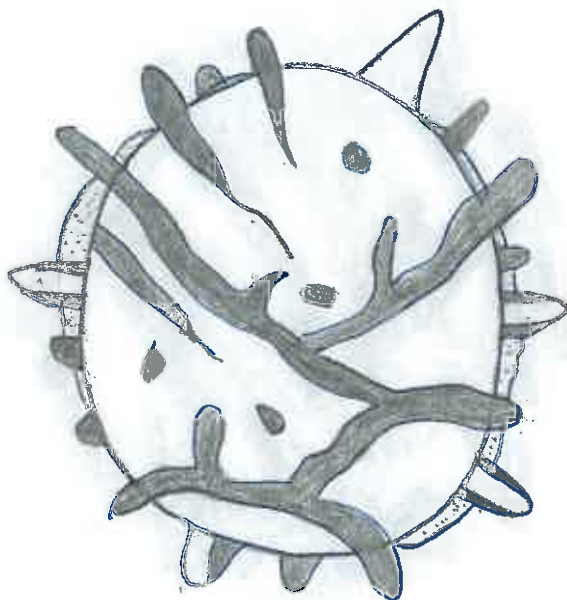
False-Pl (near edges,
60-200 μ up)
x 1000



ch - x 1000



Pseudo -
x 1000



1/62

Sm-1710

LACTARIUS PSAMMICOLA SMITH

Michigan Academy Science, Arts, & Letters ^{Papers} 26:62. 1941

Notes by Smith : *Type*

(Description from above reference)

Pileus 5-10 cm broad, center deeply depressed, margin inrolled, expanding and broadly vase-shaped in age, glutinous and slimy when fresh, surface covered by masses of agglutinated fibrils, margin coarsely fibrillose or strigose at first, merely appressed-fibrillose in age, conspicuously zonate when young, obscurely so in age, colors "ochraceous buff" to "ochraceous orange" and zoned by "light buff" bands, finally becoming sordid yellowish brown. Context thick, tapered evenly to margin, sordid buff. Latex white, copious, staining lamellae "pale grayish vinaceous" (pinkish lilac) or changing very slowly to that color when in contact with the air, extremely acrid.

Lamellae decurrent, "light buff" to nearly white at first, becoming darker and sordid ochraceous in age, close, narrow.

Stipe 1-3 cm long, 15-20 mm thick, whitish, at times scrobiculate-spotted, tapering abruptly at base, interior stuffed to hollow, whitish ^{to} sordid gray.

Spores 7-8 x 5-6.5 μ , ellipsoid, coarsely reticulated.

Gregarious on sandy soil under scrub oak and aspen, near Dexter, August 5, 1935, no. 1710, Type.

(See comments on page 63.)

3722

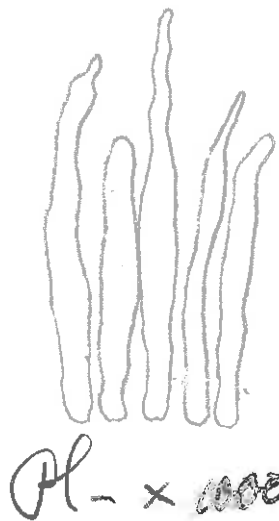
LACTARIUS PSAMMICOLA

Carter School, Knox. Co., AJS and JKU, July 10, 1934

Spores 7.5-8.5 (9) x 6-7.5 μ , subglobose to ellipsoid. Pleurocystidia 36-55 x 4-6 μ , ventricose, not conspicuous; cheilocystidia 24-30 x 3-4 μ , more or less constricted and ventricose. Pseudocystidia scattered. Cuticle a broad (170-350 μ) gelatinous zone.

Factarius psammicola

Tem- 3722



Pl- x 1000



Pseudo-
x 1000



Ch- x 1000

4126

LACTARIUS PSAMMICOLA

On soil, woods, near LaFollette, July 11, 1934

Spores, cystidia, and other characters as in Tenn-14430.

5429

LACTARIUS PSAMMICOLA

Roaring Springs, Knox. Co., Aug. 19, 1934

Spores, cystidia, and other characters as in Tenn-14430.

Sm - 8509

LACTARIUS PSAMMICOLA Smith

Siskiyou Nat. Forest, California, November 6, 1937

Notes by Smith

Pileus 4-9 cm broad, convex-depressed with an inrolled margin, expanding to shallowly depressed or broadly vase-shaped, conspicuously zonate, with alternating light and dark orange zones, viscid, depressed disc glabrous, toward margin with agglutinated fibrillose patches, margin densely fibrillose-tomentose (not strigose hairy as in L. torminosus). Latex white, unchanging, instantly very acrid.

Lamellae crowded, narrow, decurrent, pallid buff and gradually darkening to pinkish ochraceous, when dried more or less vinaceous cinnamon.

Stipe 2-4 cm long, 10-20 mm thick, short, nearly equal or enlarged either way, scrobiculate, except for the darker spots whitish-pallid orange, unpolished, in age more or less concolorous with pileus (dull orange).

Spores 7-8 x 5.5-6 ^μ broadly ellipsoid to subglobose with a sparse moderately fine reticulum; basidia four-spored; pleurocystidia scattered, 48-63 x 6-9 μ, fusoid and usually with refractive content; pellicle of pileus a thick gelatinous layer of narrow interwoven hyaline (in KOH) hyphae.

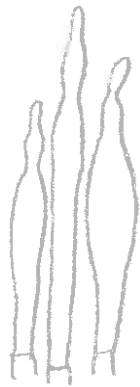
Notes by Hesler

Spores 6-8.5 x 5-6 μ , warts 0.2-0.4 μ , bands forming a partial reticulum. Pleurocystidia 34-48 x 3-7 μ , ventricose, apices tapering, more or less nodulose; cheilocystidia 27-37 x 3-4 μ , similar. Gill trama subparallel. Pileus cuticle a thick ixocutis. Stipe cuticle repent, dry; rosettes none. Clamps none.

Smith says: cf. my psammicola. This suggests that the latex stained the gills pale grayish vinaceous. Otherwise it appears to be psammicola.

Lactarius psammicola Sm.

Sm - 8509



Sp. x 1000



Ch. x 1000

Sm-8937

LACTARIUS (psammicola?)

California Lina, November 20, 1937. (Label says: see coll. from
Darlingtonia. On box: see 8509, which is L. psammicola.)

Notes by Hesler

Spores 6-8 x 4.5-5.5 μ . Pleurocystidia and cheilocystidia as in
L. psammicola. Pileus cuticle an ixocutis.

This may, or may not, be psammicola.

Pileus 4-14 cm broad, disc depressed, margin inrolled, expanding and becoming broadly vase-shaped, glutinous when fresh, surface covered by masses of agglutinated fibrils, margin coarsely fibrillose or strigose at first, merely appressed-fibrillose in age, conspicuously zonate when young, obscurely so in age, "ochraceous buff" to "ochraceous orange" and zoned by "light buff bands, finally becoming sordid yellowish brown." Context thick, thin at the margin, sordid-buff. Latex copious, white, staining the lamellae "pale grayish vinaceous" or changing very slowly to that color when in contact with the air, extremely acrid.

Lamellae decurrent, close, narrow, light buff to nearly white at first, becoming darker and sordid ochraceous in age.

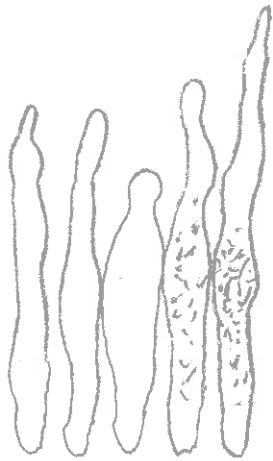
Stipe 1-3 cm long, 10-20 mm thick, whitish, at times scrobiculate-spotted, tapering abruptly at the base, stuffed to hollow.

Spores pale yellowish $7-8.5 \times 5.5-7.5 \mu$, ellipsoid or at times subglobose, warts $0.4-0.7 \mu$ high, bands with branches forming a partial reticulum. Basidia $38-44 \times 7-9 \mu$, 2-4-spored. Pleurocystidia $37-63 \times 5-8 \mu$, scattered, ventricose, at times sub-capitate; cheilocystidia $25-40 \times 3-6 \mu$, similar. Gill trama more or less cellular. Subhymenium not differentiated. Pileus cuticle an ixocutis, the zone $150-400 \mu$ thick, composed of narrow, gelatinous, repent hyphae, at times with more or less erect bundles of hyphae (agglutinated fibrils). Stipe cuticle of dry hyphae; caulocystidia $23-52 \times 3-6 \mu$, cylindric, often subcapitate, slightly constricted, forming more or less a turf. Clamp connections none. Pileus and gill trama dingy pale-yellow in KOH, and reddish brown in Melzer's reagent.

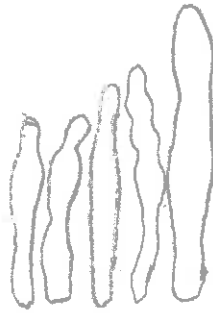
HABITAT AND DISTRIBUTION - On lawn, Tennessee, July-August.

Gastrium psammicola Smith

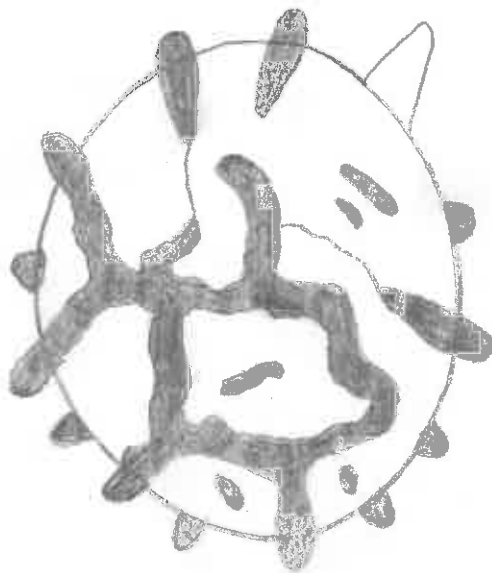
Tenn - 14430



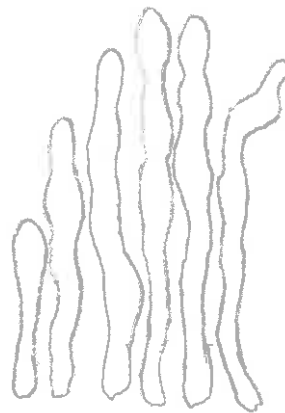
Pl - x 1000



Ch - x 1000



Spore - x 8000



Caulo - x 1000

16188 PSAMMICOLA Smith
 LACTARIUS ~~PROTODAMUS~~ ~~Smith & Burd.~~
Gainesville, Fla., leg.-det. Murrill.

 This is L. psammicola. Spores and other characters
agree.

22316 LACTARIUS PSAMMICOLA A. H. Smith

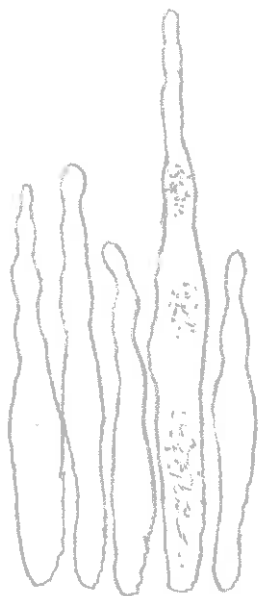
Pileus 8-12 cm broad, infundibuliform, "warm buff," glutinous, zoned, agglutinated-tomentose, especially on the incurved margin. Context rather thick, whitish; unchanging when cut; odor slight. Latex white, unchanging, promptly very acrid.

Lamellae decurrent, crowded, narrow, some forking behind, edges even.

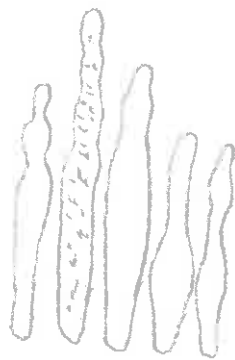
Stipe 4-6 cm long, 15-20 mm thick, pallid with buff spots, not viscid, hollow.

Spores short-ellipsoid to nearly globose, 7-8.5 x 6-7 μ , warts 0.5-0.8 μ high with conspicuous broad reticululations, pale cream in mass. Pleurocystidia 40-77 x 5-7 μ , ventricose, at times slightly capitate, granular; cheilocystidia 28-48 x 4-6 μ , similar. Cuticle a gelatinous zone 150-400 (800) μ thick.

Sactarius psammicola Smith
Term. 22316



Pl - x 1000



Ch - x 1000

[Spores as in
Term. 14430]

Sm-55774

LACTARIUS PSAMMICOLA

Soil, oak-pine woods, Grants Pass, Oregon, November 17, 1956 (near
psammicola)

Notes by Smith

Pileus "pinkish cinnamon," zoned "pinkish buff," margin hairy-fimbriate, viscid. Latex white, unchanging, not staining; taste instantly very acrid and persisting.

Gills pale pinkish buff, not staining.

Stipe spotted.

Spores more or less cartridge buff in deposit.

Notes by Hesler

Spores (5)6-8(8.5) x (4)5-5.5(6) μ , warts 0.2-0.3 μ , bands and branches forming a partial reticulum. Pleurocystidia 52-63 x 6-8 μ , subfusoid-acuminate; cheilocystidia 36-45 x 5-7 μ , similar. Pileus cuticle a ixocutis, 250-350 μ thick, hyphae yellowish brown; hypoderm brown. Stipe cuticle of repent, dry hyphae, sometimes fibrillose; rosettes present.

Agrees best with L. psammicola, but this assumes that the latex stained the gills or itself changed to pale graying vinaceous (a character which may have been overlooked).

Sm-55846

LACTARIUS PSAMMITICOLA

(CARD - 8509)

In oak-pine woods, Grants Pass, Oregon, November 19, 1956

Same as Sm-8509.

Spores 6-8 x 5-6 μ . Pleurocystidia 47-68 x 5-7 μ ; cheilocystidia 35-42 x 4-6 μ . Pileus cuticle an ixocutis. Stipe cuticle of dry, repent hyphae; rosettes none.

Sm-55849

LACTARIUS PSAMMICOLA

In oak-pine woods, Grants Pass, Oregon, November 19, 1956

Notes by Smith

(on the label, Smith asks: are these old 8509 specimens?)

Pileus 10-15 cm, vase-shaped, zonate, orange and pinkish-buff alternating, margin naked. Taste slowly acrid and bitterish. Latex white, unchanging, slowly acrid and bitterish, not staining.

Lamellae buff with a pinkish tone, not staining.

Stipe concolor with gills, spotted.

Notes by Hesler

Spores, pleurocystidia, cheilocystidia, pileus and stipe cuticle as in Sm-55846.

Sm-55878

LAETARIUS PSAMMICOLA

(CARD: 8509)

In pine-oak woods, Grants Pass, Oregon, November 20, 1956

Spores 6-8 x 5-5.5 μ --slightly smaller than normal. Other micro characters usual.

Sm-63086

LACTARIUS PSAMMICOLA

Michigan,
Cross Village, [^]leg. Nancy Smith, August 31, 1960

Smith says acrid, color of insulsus, margin
hairy.

Spores 7-8.5 x 6-7.5 μ , warts 0.3 - 0.6 μ high;
pseudo present; otherwise typical. No rosettes in
stipe.

Sm-77182

LACTARIUS PSAMMICOLA A. H. Smith

On lawn, 818 Antoinette Ave., Winter Park, Florida,
Oct 8, 1948 (Labelled L. Louisea n. sp. by Burlingham)

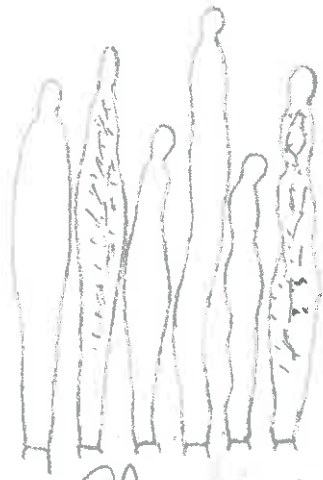
(No Notes by Burlingham; see Sm-77183, 77184, 77185 for notes)

Spores pale yellowish in deposits, 6.5-8.5 x 6-7.5 μ , ellipsoid, warts 0.3-0.6 μ high, with bands forming a partial or at times a complete reticulum, usually with some free-ending branches and isolated warts. Basidia 38-47 x 7-9 μ , 4-spored. Pleurocystidia 37-58 x 5-8 μ , ventricose, often more or less constricted, apices with a capitellum, granular-spangled; pseudo present; cheilocystidia 26-38 x 3-5 μ similar. Gill trama more or less interwoven. Pileus trama vesiculosus; no rosettes. Pileus cuticle a thick (250-400 μ) zone of colorless, interwoven more or less gelatinous hyphae. Stipe cuticle loosely interwoven and not distinctly differentiated, bearing a turf of colorless caulocystidia, 34-45 x 2-4 μ , hair like cylindric, at times slightly constricted. Stipe cortex with a few rosette cell-groups. Clamp connections none.

This is identical with L. psammicola Smith; the latex in this species is white then either itself slowly becoming "pale grayish vinaceous" or staining the lamellae this color. I am convinced that Burlingham

(which is usually slow)
overlooked this color change[^] in the latex (or in the gills)
- and did not identify it as L. psammicola.

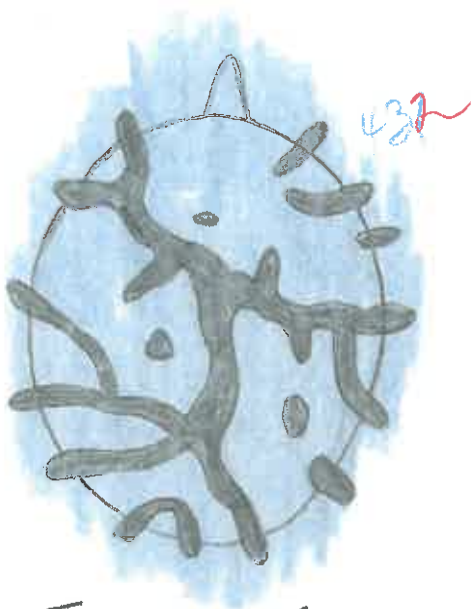
prammicla
Lactarius Louisa ~~Det. sp. nov. (in herb.)~~
 (H. Louisa)
 Sm - 77182



Pl - x 1000



Ch - x 1000



Spore - x 8000



Caule (turf)
 - x 1000

Sm-77183

LACTARIUS PSAMMICOLA

Leg. Burlingham, Florida, January 3, 1946

Notes by Burlingham

Pileus 4-6 cm broad, convex, yellowish, viscid, zonate. Latex white, unchanging, peppery. Odor pleasant. Lamellae adnate, white, close, broad. Stipe spotted, 2-3 cm x 8-12 mm.

Notes by Hesler

Micro characters as in Sm-77182, except the turf elements on the stipe are either more or less matted down or have been "~~bea~~ feathered" away.

Sm-77184

LACTARIUS PSAMMICOLA

Leg. Burlingham, Nov. 1, 1947, on lawn, Winter Park, Fla.

Notes by Burlingham

Pileus 4-12 cm broad, viscid, margin incurved, and finely fibrillose, surface honey-yellow, paler zoned with ochroleucous to isabelline to brownish terra cotta, the zones close and made up of spots. Latex white, drying snuff brown on gills. Odor slightly fruity.

Lamellae at first applid, close, unequal, becoming snuff brown where wounded.

Stipe short, 3 cm x 20 mm, brownish terra cotta, spotted.

Notes by Hesler

Spores and other microcharacters as in Sm-77182.

Sm-77185

LACTARIUS PSAMMICOLA

On soil, lawn, Winter Par, Fla., leg. Burlingham,
Nov. 1, 1947

Notes by Burlingham

Pileus 6-10 cm broad, ochroleucous, zoned, depressed, spreading, viscid, margin tomentose, somewhat striate at maturity. Latex white, peppery; odor fruity.

Lamellae adnate, some forking near base, unequal, close, pallid then colored like pileus.

Stipe whitish then yellowish, scrobiculate, finally hollow.

Notes by Hesler

Micro characters as in Sm-77182.

Sm-77186

LACTARIUS PSAMMICOLA

Winter Park, Florida, leg. Burlingham, Dec. 2, 1948

Spores and other characters as in Sm-77182.

Sm-77187

LACTARIUS PSAMMICOLA

Winter Park, Florida, leg. Burlingham, Oct. 21, 1948

Spores and other characters as in Sm-77182.

35672

LACTARIUS PSEUDO-AFFINIS sp. nov. - *Type*

Under deciduous hemlock, Coweeta, North Carolina, August 18, 1970

6-8 cm broad, plano-convex, slightly depressed,

Pileus [^] "ochraceous buff," viscid, azonate, glabrous, margin naked and faintly short-striate. Context white, rather firm; faintly fragrant. Latex white, unchanging and not staining, ^{taste} acrid. [^]

Gills adnexed, white then ivory, finally "warm buff," broad, medium close to nearly subdistant.

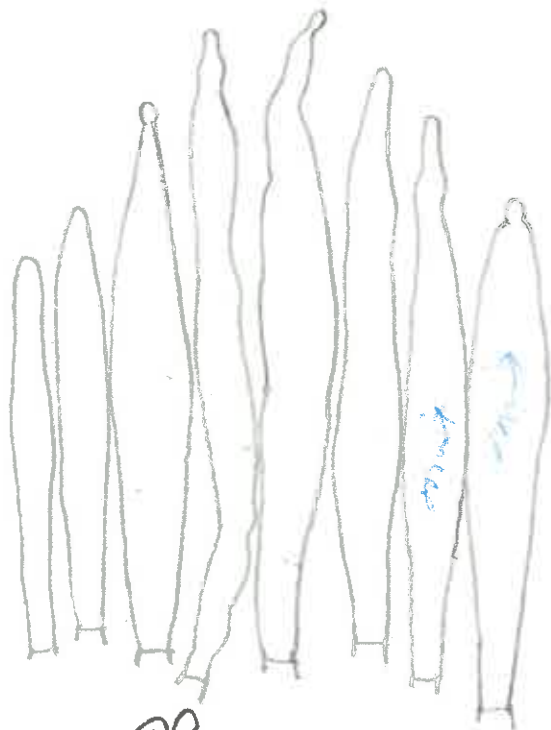
3.5-4 cm long, 8-11 mm thick,

Stipe [^] tinged buff, viscid, lightly scrobiculate, hard, hollow, equal.

Spores in deposit: "warm buff" ~~spores~~ ⁵ 5.5-7.5(8) x 5-7(7.5) μ , globose to broadly ellipsoid, warts up to 0.3 μ high, bands and branches forming a partial (more rarely a complete) reticulum. Basidia 45-53 x 8-10 μ , (2)4-spored. Pleurocystidia 52-86 x 5-11 μ , abundant, ventricose or subventricose, more or less acuminate; cheilocystidia 22-33 x 4-5 μ , ventricose, sparse. Gill trama of narrow, undulating hyphae. Pileus cuticle an ixocutis. Stipe cuticle an ixocutis; rosettes present. Clamp connections none.

This is nearest L. affinis, but differs in short striations on the cap-margin, the white unchanging, non-staining latex, the darker color, the distinctly smaller spores. From L. insulsus, it is distinguished by its azonate pileus, different color, fragrant odor, and smaller spores.

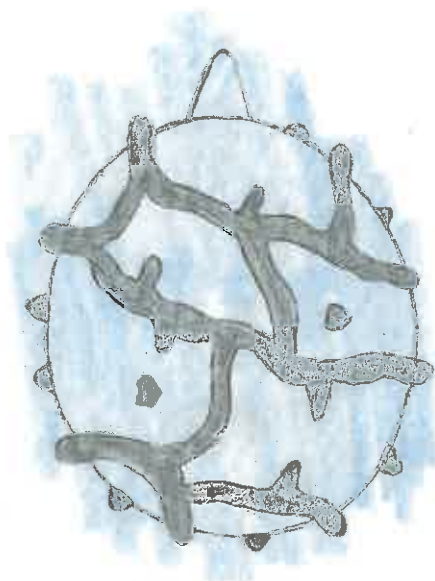
Factarins pseudo-affinis sp. nov.
35672



Pr - x 1000



Ch - x 1000



x 412

Spore -
x 8000

25658

pseudo-affinis
LACTARIUS TENNESSENSIS sp. nov.

On soil, deciduous-hemlock woods, Cades Cove, July 5, 1963

Pileus 4-5 cm broad, near "ochraceous orange" but with a pale brownish tint, depressed to subinfundibuliform, glabrous, viscid, when wet obscurely zoned, margin even. Context white; odor none. Latex white, unchanging, not staining tissues, promptly acrid.

Lamellae adnate-decurrent, whitish, becoming "ochraceous-buff," not staining by the latex where bruised, close, medium narrow, several short, some forking behind.

Stipe 2.5-4 cm long, 9-11 mm thick, dingy-pallid, rivulose, somewhat spotted, viscid, more or less equal, hollow.

Spores in deposit pale cream, 5.5-7 x 4.5-5.5(6) μ , ellipsoid to subglobose or globose, warts 0.3-0.4 μ high, blunt with a broad base, reticulum of broad bands, without fine lines. Basidia 37-44 x 8-9 μ , 4-spored. Pleurocystidia 62-96 x 7-10 μ , subulate or ventricose, apices tapering, apices at times mucronate or subcapitate, granular-spangled, projecting conspicuously, numerous; cheilocystidia 44-62 x 5-8 μ , similar. Gill trama cellular. Pileus trama vesiculose. Cuticle a gelatinous zone, an ixocutis, 125-330 μ thick; no hypodermium. Stipe cuticle a thin gelatinous zone (often sloughing away; in some sections a distinct ixocutis) with more or less erect hyphae and caulocystidia, -an ixocutis; caulocystidia 25-55 x 3-5 μ ,

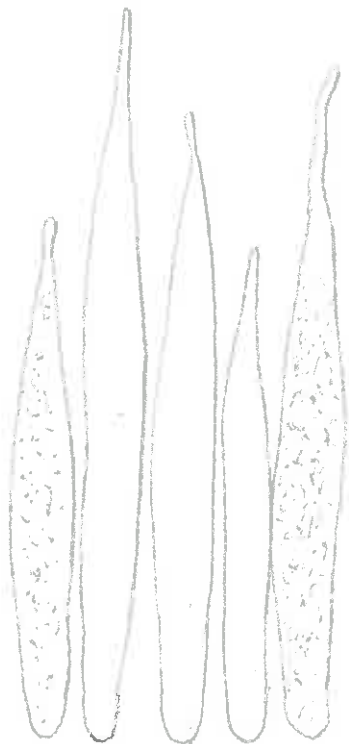
25658

pseudo-affinis
L. ~~tennessensis~~ - page 2

cylindric, often slightly constricted; rosettes present.
Clamp connections none.

This has some macroscopic features of L. insulsus, but the spores are smaller. It is close to L. insulsus var. microsporus in which the spore-ornamentation is different (spore-warts more slender).

~~Fennellia~~
Factarius ~~confusus~~ sp. nov.
~~Tenu-25658~~ ~~in culture on agar medium~~
 Tenu-25658 pseudo-affinis



Sp. x 1000



Ch. x 1000



Spore - x 8000



Caulo - x 1000

Pileus 3-10 cm broad, convex-depressed, thinly viscid, "light ochraceous buff," "warm buff," to "cartridge buff," azonate, glabrous, margin silky, even, and involute. Context thick on disk, thin on margin, white becoming violaceous when cut; odor mild. Latex copious, white then grayish, staining lamellae violaceous to brownish lilac, promptly very acrid.

Lamellae adnate, white then yellowish-buff, staining violaceous, close or crowded, arcuate, medium broad, many short, few forking behind, edges even.

Stipe 4-6.5 cm long, 6-20 mm thick, concolorous with the pileus, not spotted, glabrous, rivulose (under lens), slightly viscid, equal or tapering upward, base curved, spongy-hollow.

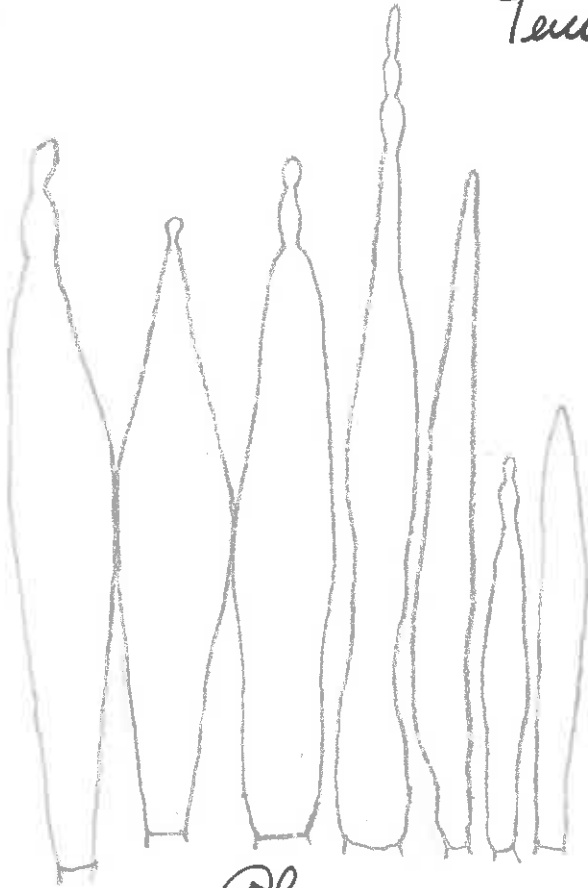
Spores 8-11 x 7.5-9 μ , ellipsoid, more rarely subglobose, warts 0.5-1.2 μ high, some isolated, some only partially amyloid, usually rather slender, numerous, bands broad and often nodulose, with some fine lines. Basidia 37-48 x 8-10 μ , 4-spored. Pleurocystidia 52-112 x 6-16 μ , ventricose, appendiculate or mucronate, or tapering, broader ones away from the edges, narrower near the edges; cheilocystidia 42-60 x 5-10 μ , ventricose, apices tapering. Gill trama of rather large, irregular cells. Pileus trama vesiculose. ^{Pileus} Cuticle a well-defined zone, 100-200 μ thick, of gelatinous hyphae (an ixocutis) resting on a brownish hypodermium; pileocystidia none. Stipe cuticle a thin gelatinous zone, ixocutis 20-40 μ or less thick; caulocystidia none. Clamp connections none.

Characterized chiefly by its pileus colors, glabrous except for silky margin; the latex white then grayish but staining violaceous to brownish lilac, slightly viscid stipe, and large pleurocystidia and cheilocystidia.

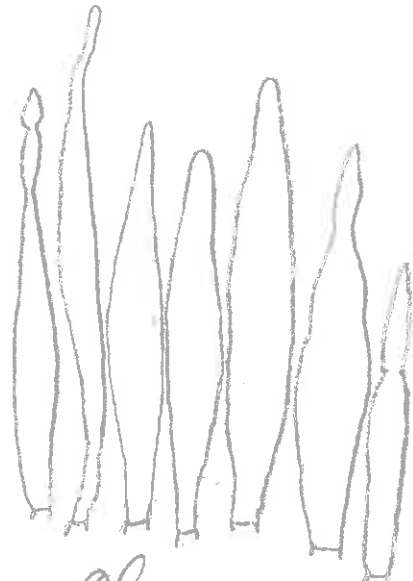
This keys-out to L. aspileus but in that species the pileus is smaller; the spores larger, the warts longer, and the general ornamentation different; the pleurocystidia and cheilocystidia both longer and broader.

Factarium^{pseudo-}aspideus sp. nov.

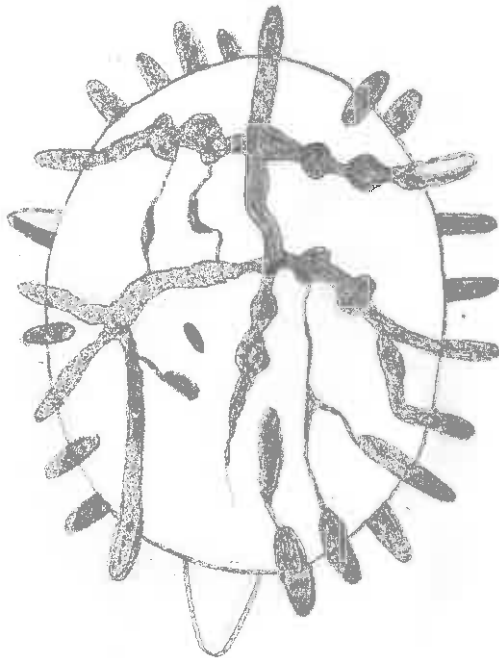
Tenu - 20465



Pl - x 1000



Ch - x 1000



Spore - x 8000

Sm-61640

LACTARIUS *pseudodeceptorius* sp. nov.
~~PSEUDO-AGGLUTINATUS sp. nov.~~

Under aspen, spruce, and jack-pine, Le Guite, Laurentide Park, Quebec,
August 31, 1959

Notes by Smith

Pileus 8-16 cm broad, broadly convex to plane with disc shallowly depressed, margin incurved, white at first, but gradually isabelline to pale crust-brown, surface rough in age and often appearing as if covered by a thin mycelial coating, azonate, surface slightly viscid at first but soon dry and appearing matted-fibrillose, margins thinly strigose-tomentose. Context thick, white, hard; taste burning acrid. In stipe, changing to tin buff where cut, in KOH slowly "pale sulphur yellow" on flesh, brownish on cuticle. Latex white, unchanging, not staining, acrid.

Lamellae adnate to depressed-adnate, white at first, slowly changing to "pinkish buff," in age "cinnamon buff" or more tan colored, narrow becoming moderately broad, close, nearly equal, edges even.

Stipe 4-8 cm long, 8-11 mm thick, equal, white, slowly brownish in age, inside especially, hard, becoming hollow, surface glabrous, viscid, not spotted.

Spore deposit: dull white.

Notes by Hesler

Spores dull white in deposit, 8-11 x 7-9 μ , ellipsoid to sub-globose, warts 0.2-0.5 μ , bands with some free-ending branches, forming a complete, or at times a partial, reticulum. Basidia 46-52 x 9-11 μ ,

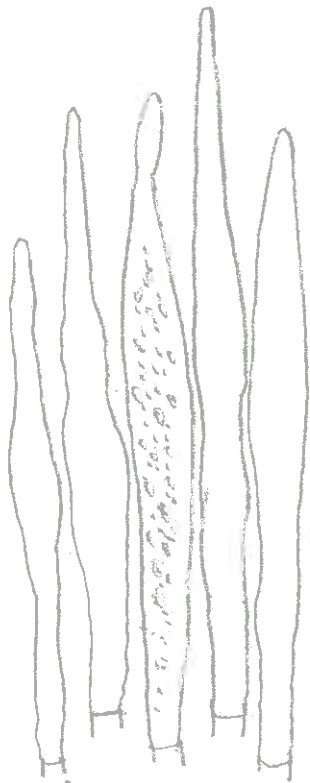
4-spored. Pleurocystidia 68-92 x 6-9 μ , slender-fusoid, granular; cheilocystidia 24-35 x 4-6 μ , subcylindric to subventricose. Gill trama of interwoven hyphae; subhymenium a zone of narrow interwoven hyphae. Pileus trama vesiculose. Pileus cuticle a zone of loosely arranged (more or less interwoven), gelatinous hyphal strands, 500-800 μ thick, resting on a brownish hypodermium. Stipe cuticle an ixocutis; hypodermium brownish; rosettes present. Clamp connections none.

This suggests a relationship to the Sect. Triviales in its viscid cap and stipe; but the matted-fibrillose cap-surface and cottony margin indicate Sect. Torminosi. It is near L. agglutinatus, but in that species the spores are smaller and are creamy-white in deposit, and the cap surface when dry appears squamulose.

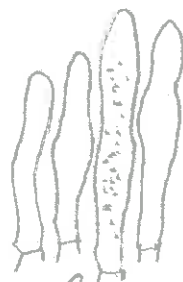
Factarium pseudo-gesopernus sp. nov.

Sm - 61640 - Type

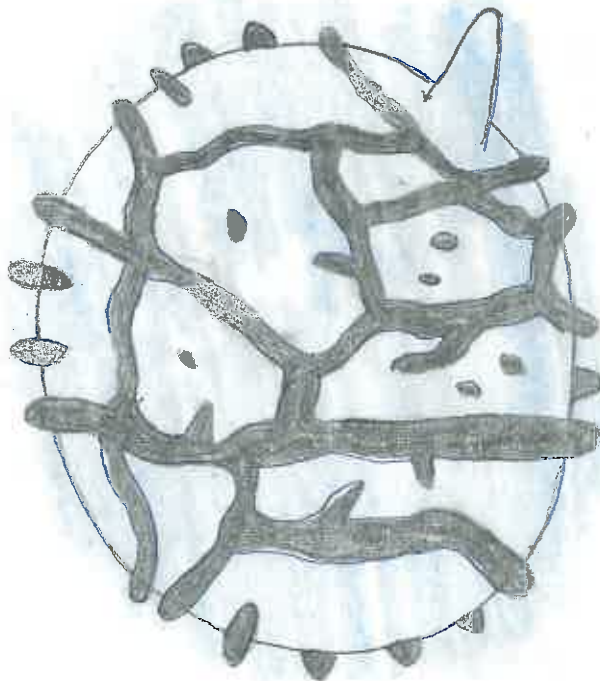
Formosa



Pl - x 1000



Ch - x 1000



933

Spore - x 8000

Sm - 29178 LACTARIUS PSEUDODECEPTIVUS sp. nov. PHOTO
Gregarious, near hemlock, cedar, and fir, Longmire Camp
Grounds, Mt. Rainier Nat. Park, Washington, July-August,
1948 (like deceptivus but viscid)

Notes by Smith

Pileus 6-12(17) cm broad, disc shallowly depressed, margin arched and incurved, gradually expanding to vase-shaped, (stature of L. deceptivus), color "pinkish buff" on marginal area, shading to "Sayal brown" or a paler cinnamon over disc, surface glutinous, with a thick coating of matted tomentum beneath gluten, soon dry and then merely tomentose-fibrillose, the inrolled margin cottony-tomentose. Context thick, white, hard, not changing color when cut; odor none, taste distinctly acrid. Latex white, copious, unchanging^m, the gills staining brownish in contact with latex, acrid.

Lamellae adnate, becoming decurrent, close, narrow, creamy white, discoloring to brown in old caps, many forked near stipe.

Stipe 4-7 cm long, 20-30 mm thick, solid, hard and white within, surface dull white and uneven, not spotted.

Spores white in deposit, 8-10(11) x 6-8 μ , broadly ellipsoid to subglobose, reticulate with heavy lines, reticulum complete or broken (in some the main lines heavy and these giving rise the heavy short lateral branches). Basidia four-spored. Pleurocystidia 60-90 x 9-13 μ , prominent, numerous, projecting, fusoid, hyaline, content more or less refractive; cheilocystidia if similar to pleurocystidia rare,

edge covered by many very small clavate to filamentous cells. Cuticle of pileus a thick mat of tangled narrow hyphae which appear subgelatinous in KOH.

Notes by Hesler

Spores white in deposit, 7.5-10 x 6-8 μ , ellipsoid, warts 0.2-0.7 μ high, bands with some free-ending branches forming a partial or complete reticulum. Basidia 43-52 x 7-9 μ , 4-spored. Pleurocystidia 52-92 x 6-10 μ , more or less cylindric or subventricose, often constricted, apices obtuse or tapering slightly; cheilocystidia 36-48 x 6-8 μ , similar, apices obtuse. Gill trama of subparallel hyphae. Pileus trama vesiculose, hyphae extending in various directions. Pileus cuticle an ixocutis, and a zone of gelatinous hyphal strands, hyphae 4-8 μ broad; hypodermium present. Stipe cuticle a thin ixocutis, the surface soon dry; rosettes present. Clamp connections none.

This is characterized by a viscid epicutis of a pileus and stipe, a cottony roll on the pileus margin, bright colors, white spore-deposit. It is near L. deceptivus, in which the pileus and stipe are dry, the spores somewhat larger (9-12(15) μ long) than in Sm-29178 and with entirely different ornamentation.

The viscid stipe and acrid taste separate it from L. siccipes, sp. nov.

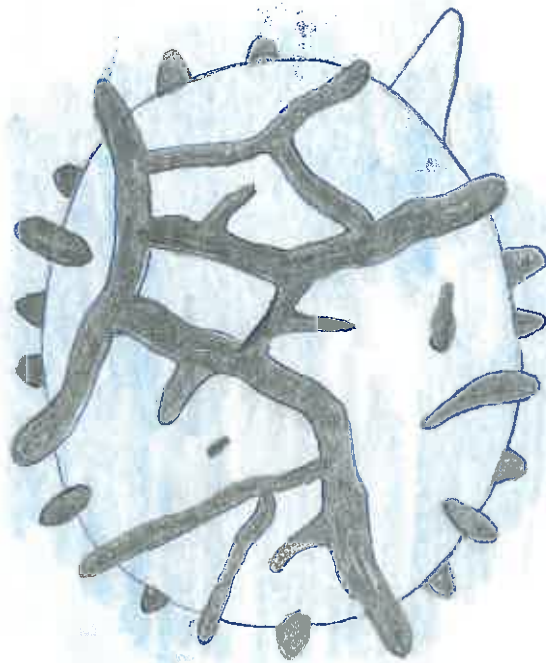
Lactarius ~~propinquus~~ sp. nov.
pseudodeceptorus
 Sm - 29178



Pl - x 1000



Ch - x 1000



901

Spore - x 8000

Sm-29730 LACTARIUS PSEUDODECEPTIVUS sp. nov. (CARD: 29178)

Longmire Campground, M.R.N.P., Washington, August 1, 1948.

Micro characters as in Sm-29178. The stipe shows a thin
ixocutis.

Sm - 30440 LACTARIUS PSEUDODECEPTIVUS sp. nov. (Card: 29178)

Longmire, Washington, September 1, 1948

Spores 8-10.5 x 6-8 μ . Basidia 46-52 x 7-9 μ , (2)
4-spored. Otherwise as 29178.

Sm - 30487 LACTARIUS PSEUDODECEPTIVUS sp. nov. (CARD: 29178)

Mt. Rainier Nat. Park, Washington, August 23, 1948

Pileus 17 cm broad (Smith).

Spores 8-10.5 x 6.5-8 μ . Pleurocystidia 46-92 x 7-10 μ ;
cheilocystidia 37-48 x 6-8 μ . Pileus cuticle of gelatinous
hyphal-strands. Stipe cuticle a very thin ixocutis.

Agrees with Sm - 29178.

Sm-31621 LACTARIUS PSEUDODECEPTIVUS sp. nov.

Longmire, Washington, in hemlock woods, September 22, 1948

(Smith says: CARD - 29178, which is L. pseudodeceptivus
sp. nov.)

Spores (7.5)8-11.5 x 7.5-8(9) μ . Otherwise as in
Sm-29178.

LACTARIUS PSEUDODECEPTIVUS sp. nov.

Smith-71932

under pine, Sugar Island, Michigan, July 31, 1965

Notes by Smith (supplemented)

Pileus 13 cm broad, deeply depressed, "cinnamon buff", azonate, viscid, center glabrous, marginal area matted-fibrillose, margin downy. Context taste burning. Latex white, unchanging, staining "cinnamon buff", acrid.

Lamellae adnate, "pinkish buff", staining "cinnamon buff", close, medium broad.

Stipe 5 cm long, 25 mm thick, concolorous with the pileus, dry, hollow, not spotted.

Spore deposit: cream ochraceous.

Notes by Hesler

Spores in deposit creamy ochraceous, $7.5-10 \times 6-8.5 \mu$, ellipsoid, warts $0.2-0.3 \mu$, bands and a few branches, forming a complete or a partial reticulum. Basidia $46-53 \times 8-10 \mu$, 4-spored. Pleurocystidia $56-104 \times 7-10 \mu$, subventricose-acuminate, subclavate-appendiculate, or subcylindric especially near the gill-edge; cheilocystidia $28-35 \times 5-8 \mu$, ventricose or subcylindric, widely scattered, inconspicuous. Gill trama of undulating subparallel hyphae. Pileus cuticle an ixocutis, at times inconspicuous, surface bearing strands (fibrils) of colorless, more or less gelatinous hyphae. Stipe cuticle dry, hyphae slender, perpendicular, forming a colorless zone ($60-75 \mu$ thick) resting on a brownish hypodermium ($25-40 \mu$ thick); rosettes present. Clamp connections none.

Chief characters include: azonate pileus, rather glabrous center, fibrillose marginal zone, downy margin; acrid latex which stains the gills cinnamon buff; creamy-ochraceous spores which are completely or partially reticulate, short.

It differs from L. torminosus var. torminosus in which the pileus is usually zonate; the latex not staining; spores white in deposit, and partially reticulate. It also differs from L. torminosus var. azonarus, which has spores which are smaller and with different ornamentation, the pileus disc salmon-orange, stipe spotted.

Sactarius ~~*truncatus* var. *truncatus*~~ ~~*truncatus* var. *truncatus*~~

Sm-71932 *pseudodeceptionis*

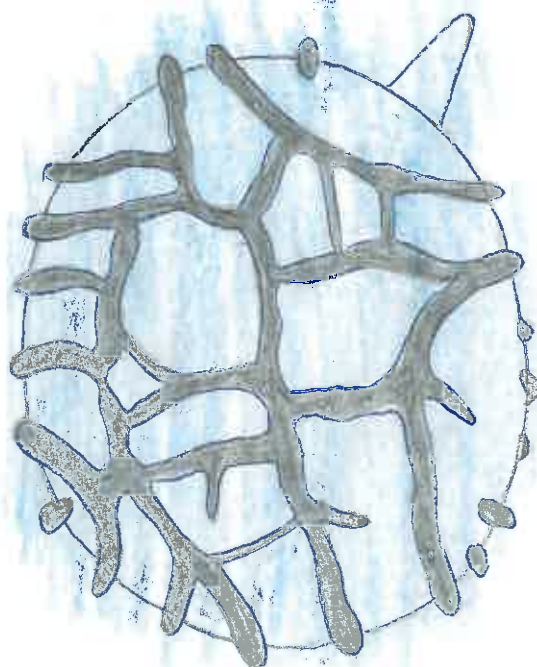
(Notes being copied)



Pl. x 1000



Ch. x 1000



922

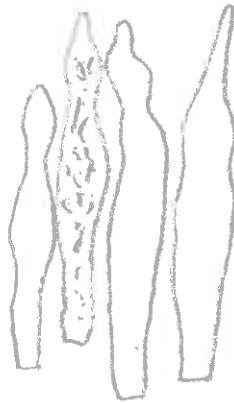
Spore. x 8000

Pachyramphus pseudo-edicatus Sm.

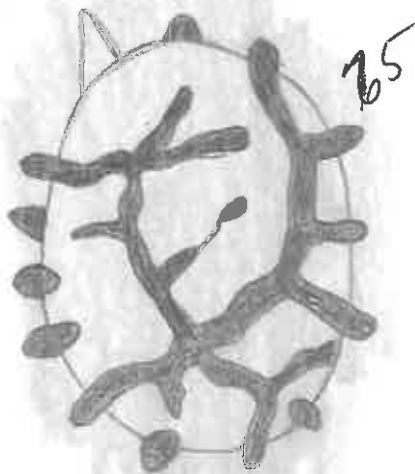
Sm- 38368 (Type)



Pl- x 1000

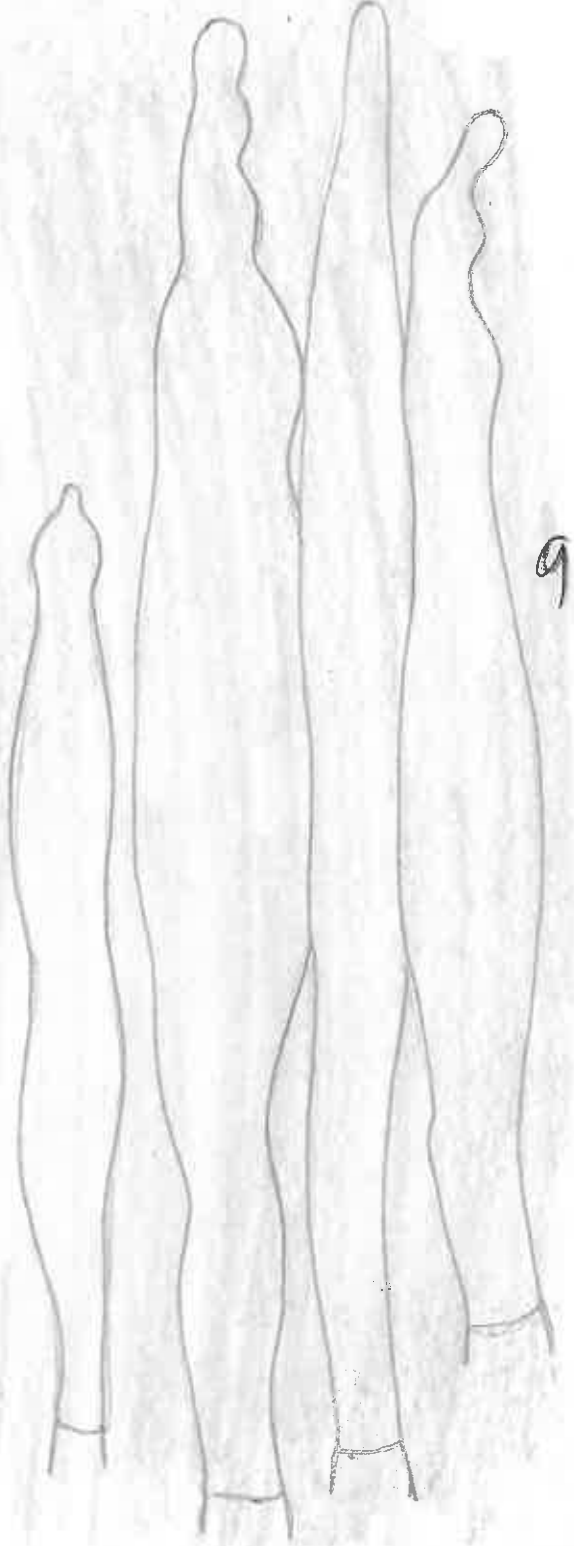


Ch- x 1000



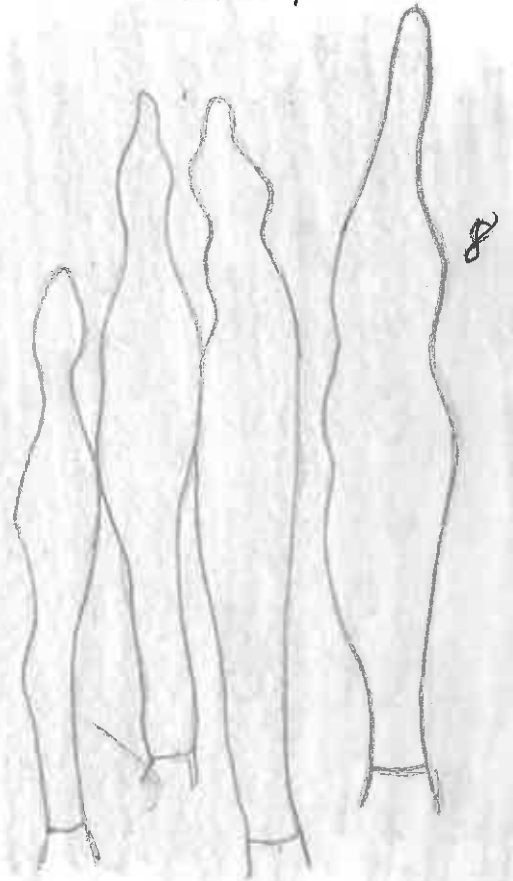
Spore - x 8000

L. pseudo-delicatius Sm.
Sm-38368 (Type)



Pl - x 2000

ch - x 2000



pseudodelicatus var. *lactarius paradoxiformis* (Murrill)
Lloydia 7:304. 1944

Illustrations:

Pileus 6-8 cm broad, convex to plane with a depressed center, gregarious, cremeous, becoming bluish-green in part or wholly, viscid, glabrous, margin paler, deflexed, even or striate over the lamellae. Context pallid above, ferruginous below, unchanging; odor slightly fragrant, taste slightly but distinctly acrid. Latex not copious enough to form drops but staining orange to rusty, acrid.

Lammellae short-decurrent, ochraceous, becoming partly bluish-green in age, arcuate, inserted, crowded or close, rather narrow.

Stipe 2-5 cm long, 10-15 mm thick, ochraceous, bluish-green where bruised, equal, smooth, glabrous.

Spores 7.5-9 x 6-7.5 μ , ellipsoid, warts 0.3-0.5 μ high, with rather broad bands plus a few fine lines. Basidia 37-46 x 8-10 μ , 4-spored. Pleurocystidia 48-70 x 5-7 μ , awl-shaped to flask-shaped ^{or ventricose,} apices rounded, at times tapering, widely scattered, rare; pseudocystidia 33-50 x 2.5-5 μ , cylindric, imbedded, with a brownish contents, scattered; cheilocystidia 27-40 x 4-5 μ , awl-shaped or flask-shaped, tapering above. Gill trama cellular

pseudodeliciosus v.

L. PARADOXIFORMIS 2

with a brownish mediostrate. Pileus trama vesiculose. Cuticle a zone of gelatinous hyphae, 30-140 μ thick, resting on a brown hypodermium. Caulocystidia 22-35 x 5-7 μ , ventricose, at times with a slender neck, scattered or in small tufts.

HABIT, HABITAT, AND DISTRIBUTION - On soil, under oak and hawthorn, Florida, November-December.

MATERIAL STUDIED - FLORIDA: Murrill F 19250, type (FLAS), Orange Lake, Marion County, December 7, 1941; also Murrill (Tenn-16192 and Tenn-18461).

pseudodeliciosus var.

LACTARIUS PARADOXIFORMIS Murrill

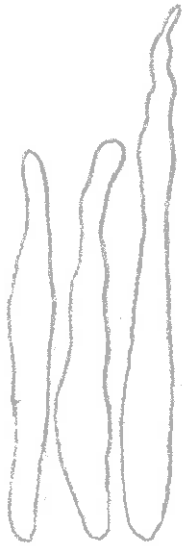
Under red oak and hawthorn, Orange Lake, Marion County, Florida, leg.-det.
Murrill, December 7, 1941

Type (F-19250 of *paradoxiformis*)

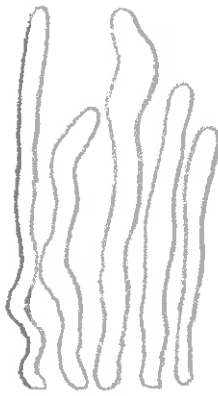
Spores 7.5-9 x 6-7.5 μ , ellipsoid, warts 0.3-0.5 μ high, with rather broad bands plus a few fine lines. Basidia 37-46 x 8-10 μ , 4-spored. Pleurocystidia 48-70 x 5-7 μ , awl-shaped to flask-shaped, apices rounded, at times tapering, widely scattered, rare; pseudocystidia 33-50 x 2.5-5 μ , cylindric, imbedded, with a brownish contents, scattered; cheilocystidia 27-40 x 4-5 μ , awl-shaped or flask-shaped, tapering above. Gill trama cellular with a brownish mediostrate. Pileus trama vesiculose. Cuticle a zone of gelatinous hyphae, 30-140 μ thick, resting on a brown hypodermium. Caulocystidia 22-35 x 5-7 μ , ventricose, at times with a slender neck, scattered or in small tufts.

pseudodeliciosa var.:
Saccarius paradoxiformis Murr.

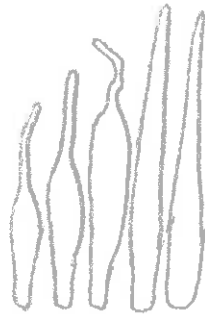
Type (7-1925) of
paradoxiformis



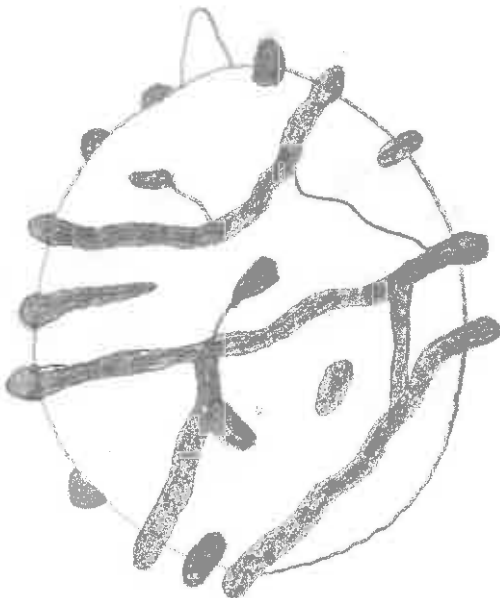
Pl- x 1000



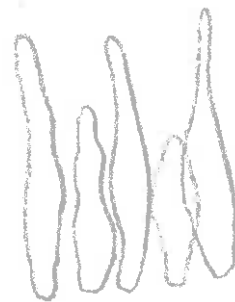
Pseudocystidia
 x 1000
 (imbedded, brownish)



Ch- x 1000



Spore - x 8000



Caule - x 1000

pseudodeliciosus var.

16192

LACTARIUS PARADOXIFORMIS Murr.

In red-oak woods, Gainesville, Murrill, December 7, 1941

Agrees with the Type (F-19250) ~~in essential~~ of paradoxiformis

18461

pseudodeliciosus v.

LACTARIUS PARADOXIFORMIS Murr.

Gainesville, Florida, leg.-det. Murrill, November 26, 1947

Spores, cystidia, and other characters as in the Type of *paradoxiformis*.

LACTARIUS PSEUDODELICIOSUS Beardslee & Burlingham

Mycologia 32:582. 1940

Type

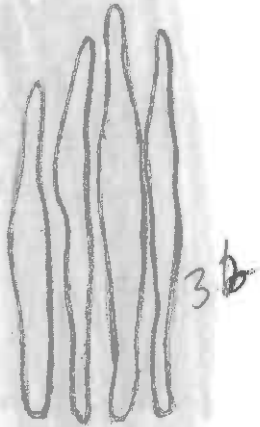
From Rock Springs, Orange County, Florida, December 22, 1937.

(The type is not only limited in amount, but the gills and pileus trama seem to be insect infested, and not in the best condition for study.)

Spores in deposit maize 2-3, 7-9 x 6-7.5 μ , ellipsoid, warts 0.2-0.5 μ high, moderately broad, with broad and some narrow bands forming a reticulum. Basidia 36-40 x 6-7 μ , 4-spored. Pleurocystidia 44-53(80) x 5-6(8) μ , more or less fusoid, widely scattered and inconspicuous, not granular; cheilocystidia 27-46 x 2-4 μ , needle-like, apices tapering, at times moniliiform-nodulose, in widely scattered groups (absent in many sections). Gill trama of small, irregular cells. Pileus trama vesiculose. Pileus cuticle a gelatinous zone, an ixocutis 170-300 μ thick. Pileo-cystidia none. Stipe cuticle a zone of narrow, dry hyphae extending periclinally; hypodermium none; rosettes few. Clamp connections none.

Factarium pseudodeliciosus Beards. + Burl.

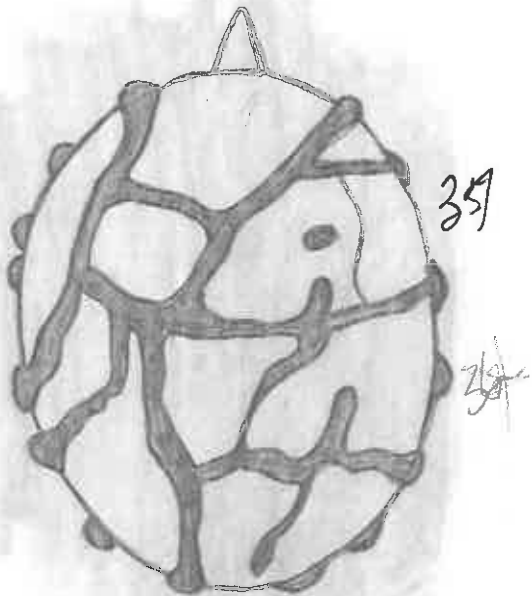
Type



Pl - x 1000



Ch - x 1000



Spore - x 8000

Barrows - 30 (1968) LACTARIUS PSEUDODELICIOSUS (?)

Under pine, (place?, New Mexico?), August 1968)

Notes by Barrows

Pileus 5-9 cm broad, at first almost white, becoming mottled creamy, azonate. Latex port-wine red, wounds staining green; flesh staining pinkish-red, especially near gills. Taste slightly peppery after-taste.

Lamellae adnate, dull orange-pink, staining green, close, medium broad.

Stipe more or less 2 cm long, compressed and 2 cm thick, basically pink, with a white bloom, becoming wine-red where cut.

Notes by Hesler

Spores 7.5-9.5(10) x 6-7.5(8) μ , warts 0.2-0.4 μ , bands and branches forming a partial reticulum. Basidia 53-60 x 9-11 μ . Pleurocystidia none found; pseudocystidia 2-4 μ broad, rather common to abundant; cheilocystidia 27-32 x 4-6 μ , subventricose. Pileus cuticle an ixocutis. Stipe cuticle of dry repent hyphae; rosettes present.

Identification with reservations!

16196 LACTARIUS PSEUDODELIC¹⁰US Beards. & Burl.

In dry oak-pine woods, Gainesville, Fla., leg. Murrill, Feb. 4, 1941

Spores 7.5-9 x 5.5-7 μ , ellipsoid, reticulate-verrucose, warts .4-.5 μ high. Pleurocystidia 36-50 x 4-6 μ , fusoid, not conspicuous; cheilocystidia 33-40 x 2.5-5 μ , slender-fusoid, clustered. Epicutis gelatinous, 200-575 μ thick.

Exclude !

Sm-63941

LACTARIUS PSEUDOFALLAX

Garden Peninsula, Michigan, swamp, August 17, 1961

Notes by Hesler

Pileus 3.5 cm, depressed, blackish-brown (dried), margin wavy.
Lamellae subdistant, edges concolor. Stipe 5 cm x 5 mm, concolor.

Spores 8.5-11 x 8.5-10.5 μ , globose or subglobose, warts 0.7-1.8 μ , mostly coarse, bands and lines forming a partial reticulum.

Pleurocystidia none; pseudocystidia filamentous, 3-4 μ broad; cheilocystidia 32-68 x 5-7 μ , cylindric to subclavate or subventricose, some subcapitate, with brownish content, extending up the sides 180-250 μ .

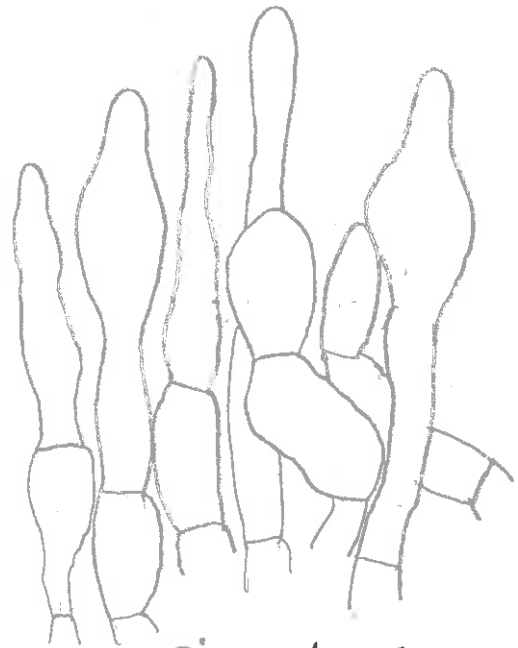
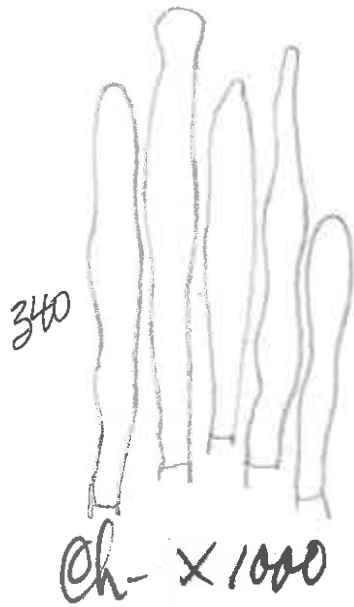
~~Pileus~~ Pileus cuticle cellular, the terminal elements as pileocystidia (as fig. 32, Brittonia 14). Stipe cuticle of repent filaments bearing a turf of caulocystidia, 40-75 x 4-8 μ , more or less cylindric, at times subcapitate; rosettes present. Clamps none.

Sheephead Lake, Chippewa Co., Michigan, August 28, 1961

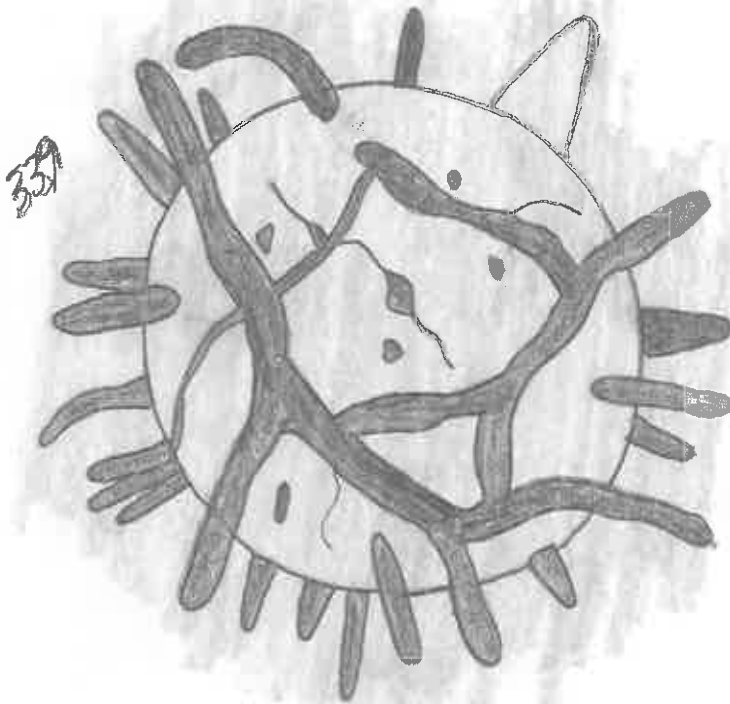
Holotype

Spores 8.5-11 x 8.5-10 μ , globose, subglobose, or rarely broadly ellipsoid, warts 1.0-2.0(2.5) μ high, often rod-like and at times curved, bands and lines forming a partial reticulum. Basidia 56-63 x 10-12 μ , 4-spored. Pleurocystidia none (except cheilocystidia extend up sides 250 μ); pseudocystidia rare, filamentous; cheilocystidia 37-60 x 5-7 μ , cylindric to subfusoid, not abundant but conspicuous. Gill trama of short-celled, interwoven hyphae. Pileus cuticle a turf of pileocystidia, 38-65 x 7-14 μ , cylindric, clavate, arising as terminal elements from one cell or a chain of 2-3 cells, the underlying zone of colorless, loosely interwoven hyphae. Stipe cuticle of interwoven hyphae, bearing caulocystidia, 42-68 x 4-10 μ , forming more or less a turf; rosettes present. Clamp connections none.

Factarium pseudofallax
 Sm-64018 - Holotype



Pileus turf- x 1000



Spore - x 8000



Caulo-
 x 1000

Sm - 23453

pseudoflexuosus sp. nov. - Type
~~LACTARIUS FROGALUS~~

On soil, in hardwoods, Wolf Bog, Cheboygan Co., Michigan, August 29, 1946

Notes by Smith

Pileus 6-10 cm broad, convex with an inrolled margin young, plane to broadly depressed in age, surface glabrous except for the faintly drab-tomentose margin when young, surface subviscid when wet but soon merely moist, somewhat zonate with "benzo brown" zones or lines of water spots, the paler areas near "drab," eventually fading to near "pallid brownish drab." Context pallid, rather thick and brittle. Latex white, unchanging though wounds may become brownish in age, acrid with a burning sensation.

Lamellae adnate to decurrent, close becoming subdistant, moderately or relatively broad, intervenose, "light pinkish buff" in buttons, at maturity "light pinkish cinnamon," in age sometimes darker, quite a few forked, edges even.

Stipe short, 3-5 cm long, 1-2 cm thick, surface uneven, ~~pale to buff~~ tinged with the color of the cap ^{but paler}, more or less hoary at first and concolorous with tomentum on cap margin, hollow, fragile, dry.

Spores "pale pinkish buff" in deposit 7-8 x 5.5-6.5 μ , broadly ellipsoid to subglobose, amyloid material gathered into moderately heavy lines to form an incomplete or broken reticulum; basidia four-spored; pleurocystidia abundant, projecting, 55-80 x 7-11 μ , fusoid, many with granular content; cheilocystidia similar but smaller; cuticle of pileus

a layer of nongelatinous narrow, hyaline, interwoven hyphae which ~~are~~ ^{are} subgelatinous on surface (in KOH).

OBSERVATIONS: The cuticle distinguishes this one from 32669. However, it appears to be same as 32671, compare spores.

Notes by Hesler

This and related forms are puzzling at times.

Spores 6.5-8.5 x 5.5-6.5(7) μ , warts 0.2-0.4 μ high, bands and free ending branches forming a partial or no reticulum. Basidia 47-53 x 7-9 μ , 4-spored. Pleurocystidia 44-76 x 6-8(9) μ , ventricose to subcylindric, apices conic; cheilocystidia 34-46 x 5-7 μ , subventricose. Gill trama of slender, subparallel hyphae. Pileus trama vesiculose. Pileus cuticle a zone of outer, more or less gelatinous hyphae resting on an inner zone of subgelatinous or nearly dry hyphae; hypoderm obscure. Stipe cuticle dry, repent, bearing caulocystidia, 40-60 x 5-9 μ , more or less ventricose to variable-shaped, not a palisade, but a thin turf or none; rosettes present. Clamps none.

Factovius ~~pyrogaster~~ ^{pseudoflexuosus}

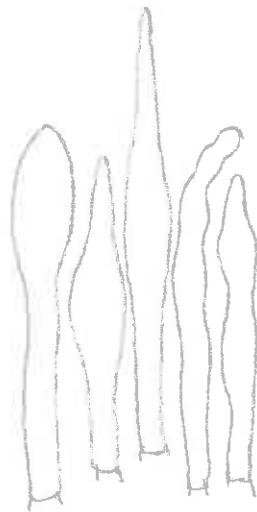
Sm - 23453



Pl - x 1000



Ch - x 1000



Caulo x 1000

24888

pseudoflexuosus sp. nov.
LACTARIUS ~~FLEXUOSUS~~

On soil, in mixed woods, Cherokee, North Carolina, July 10, 1962

Pileus 3 cm broad, expanded, umbilicate, strongly zonate, zones "light mouse gray" and "deep mouse gray", glabrous, moist. Latex white, unchanging, not staining, promptly very acrid.

Lamellae adnate, cream-colored, subdistant, broad, many short, few forking behind.

Stipe 5 cm long, 10 mm thick, viscid, "pale smoky gray," paler than cap, glabrous, more or less fusiform, hollow.

Spore print failed; spores 7-8 x 5.5-6.5 μ , ellipsoid, warts 0.3-0.7 μ high, with bands forming a partial to no reticulum. Pleurocystidia 38-77 x 6-7 μ , cylindric, apices rounded to conic; cheilocystidia 25-31 x 4-5 μ , similar. Gill trama cellular. Pileus trama vesiculose. Pileus cuticle a colorless zone, in which the hyphae are non-gelatinous or only slightly gelatinous.

Ammirati - 3703

pseudoflexuosus sp nov
LACTARIUS ~~FLEXUOSUS~~ var. ~~LUTEOLACTEUS~~ var. nov.

Scattered under hardwoods, Baraga Co., Michigan, August 13, 1969

Notes by Ammirati

Cap sticky to subviscid or dry, gray or with a slight purplish cast.
Latex cream color, not changing, not staining. Odor none; taste acrid.

Gills cream color to whitish-yellow, subdistant, brownish spotted in age, intervenose.

Stipe whitish to grayish tinted or in age sordid, base usually tapered.

Notes by Hesler

Spores $6.5-8.5 \times 5.5-6.5 \mu$, warts $0.2-0.4 \mu$, bands and branches forming a partial reticulum. Pleurocystidia $48-62 \times 5-8 \mu$; cheilocystidia $28-40 \times 3-5(6) \mu$. Pileus cuticle a subgelatinous ixocutis (slightly more gelatinous in young cap). Stipe cuticle dry, repent; rosettes present.

35616

Bas-14736

pseudoflexuosus
~~LACTARIUS FLEXUOSUS var. LUTEOLACTEUS var. nov.?~~

Leiden, South Holland, leg. Maas Geesteranus, det. Bas, September 5,
1965 (in TENN. HERB.)

Notes by Bas

Cap 75-140 mm, convex-depressed, margin undulating, subviscid to dry, azonate to slightly zonate and with faint concentric ridges, grayish isabella with a faint ochraceous tinge and then paler isabella-ochraceous in center, or violaceous-grey-beige with more or less salmon ochraceous center and with slightly darker zones, (surface minutely rough, but with faint silvery spots between, when young the margin slightly felted (Colors: Expo nearly D62 or Expo C 72, mostly about C 62-61, center nearly C 66). Odor pleasant: fruity (or) resinous. Latex not white but pale cream, cream on white paper and white tissue, very acrid, in 5% KOH yellow, and hyaline drying to white on glass.

Gills adnate or subdecurrent, moderately broad, distant, strongly intervenose, when young ochraceous cream, soon pinkish ochraceous with many small brown spots (Expo from B 63 - B 66).

Stipe 40-70 x 10-20 mm, mostly tapering down, pale violaceous grayish to dingy cream, becoming brownish in one specimen, minutely rugulose, hollow.

Notes by Hesler

Spores 6-8.5 x 5-6(6.5) μ , warts 0.2-0.5(0.8) μ , bands and branches wide-spaced, forming a partial reticulum (none zebra-like). Pleurocystidia 42-67 x 5-7 μ ; cheilocystidia 28-37 x 4-5 μ . Pileus cuticle a thin, colorless, subgelatinous zone. Stipe cuticle of dry

35616

Bas-14736

pseudoflexuosus
L. ~~flexuosus~~ var. luteolacteus - 2

repent hyphae, with more or less a turf of cylindric caulocystidia;
rosettes rare. This is near L. pyrogalus var. luteolacteus var. nov.,
but differs some in pileus colors, odor fruity-resinous.

Sm-75934

pseudoflexuosus
LACTARIUS ~~FLEXUOSUS~~ var. LUTEOLACTEUS var. nov.

PMTO

Gregarious in roadway, UMBS, Michigan, August 11, 1968 - TYPE
~~~~~

Notes by Smith

Pileus 4-10 cm broad, broadly convex with incurved margin, margin faintly pruinose-pubescent, shallowly depressed, "benzo brown" to "light drab," zonate or azonate, more or less viscid. Context hard, brittle; odor slight, taste acrid then bitter. Latex cream color, not spotting the gills.

Lamellae adnate, pinkish-buff, becoming darker, distant to subdistant, narrow, lamellulae present.

Stipe 2-4(6) cm long, 8-16 mm, tinged "light drab" or pallid, hollow, hard, not spotted, dry.

Spore deposit, dull yellow.

Notes by Hesler

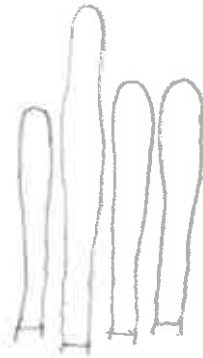
Spores in deposit: yellowish, 6-8.5 x 5.5-6.5(7)  $\mu$ , subglobose to broadly ellipsoid, warts 0.3-0.8  $\mu$ , often isolated, bands and branches forming a partial reticulum. Pleurocystidia 52-64 x 6-8  $\mu$ , scattered, ventricose-acuminate; pseudocystidia filamentous, 2-4  $\mu$  broad; cheilocystidia 30-44 x 4-6  $\mu$ , subcylindric to subclavate (more abundant on young pileus). Gill trama of subparallel, short-celled hyphae. Pileus cuticle a thin (30-45  $\mu$ ) ixocutis in young pilei, less evident in mature pilei; hypodermium none. Stipe cuticle of dry colorless hyphae; hypodermium none; caulocystidia more or less cylindric, forming a turf; rosettes present. Clamp connections none.

*Lactarius pseudoflavus* var. *luteolacteus*  
 Sm. 75934 - Type var. nov.

Crater



Pl - x 1000



ch - x 1000



1467



on soil, Highlands, North Carolina, leg. Hesler,  
September 6, 1944

Pileus 4-7 cm broad, depressed, sometimes the margin arched and uplifted, central portion wrinkled-rugulose, dry, grayish-buff to <sup>pale</sup> ~~pink~~/pinkish buff" to "pale ochraceous buff", margin slightly wrenate. Context white with an ashy tint, changing to coral pink when cut. Latex acrid, white, unchanging but staining the flesh and gills pinkish.

Lamellae adnate to subdecurrent, subdistant to distant, white at first, then ~~pink~~ finally becoming pinkish buff, edges concolorous.

Stipe 3-7 cm long, 10-15 mm thick, concolorous with the pileus or paler, dry, pruinose at first, then somewhat glabrescent.

Spores globose, 9-11 $\mu$  diam., or at times subglobose, warts 1-2 $\mu$  high, with one or two broad bands which branch, at times with a free end, usually with some webbing. Basidia 52-68 x 11-12 $\mu$ , 4-spored. Pleurocystidia none; pseudocystidia filamentous; cheilocystidia 23-34 x 5-6 $\mu$ , clavate or ventricose. Cuticle of pileus an epithelium, cells barrel-shaped or cylindric, terminal elements as pileocystidia, 15-33 x 3-13 $\mu$ . Stipe cuticle with a slightly gelatinous subcutis, surface bearing a thin turf of caulocystidia 4-28 x 3-4 $\mu$ , cylindric to clavate.

16318

LACTARIUS PSEUDOFULIGINOSUS Sm. & Hes.

PHOTO

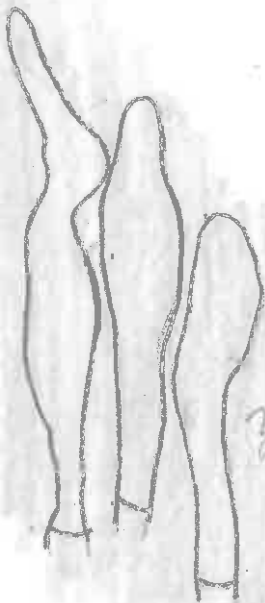
Highlands, N.C., September 6, 1944.

Type

Spores 9-11 x 9-11  $\mu$ , globose or at times subglobose, warts 1.0-2.0  $\mu$  high, heavy or more slender, one or two broad bands which branch, at times with a free end, and occasionally a few obscure lines, usually with more or less of a webbing. Basidia 52-68 x 11-12  $\mu$ , 4-spored. Pleurocystidia none; pseudocystidia filamentous; cheilocystidia 23-34 x 5-6  $\mu$ , clavate or ventricose. Gill trama of interwoven hyphae. Pileus trama vesiculose. Cuticle of pileus an epithelium, cells cylindric, barrel-shaped, the terminal elements as cylindric, spathulate, clavate pileocystidia, 15-33 x 3-13  $\mu$ . Stipe cuticle a gelatinous subcutis bearing more or less of a thin turf of caulocystidia, 14-28 x 3-4  $\mu$ , cylindric to clavate. Clamp connections none.

*Sactarius pseudofuliginosus* Sm. + Hes.

16318 - Type



Ch - x 2000

329



Ch - x 1000



Pileus cuticle - x 1000



Spore - x 8000

330



Caulo -  
x 1000



16318 - *Lactarius pseudofuliginosus* -  
Type

Sm-10309

LACTARIUS ~~PS~~DUDOMACULATUS sp. nov.

Type

Scattered under hardwood, Mt. LeConte, Tennessee, 2000 ft., GSMNP,

August 17, 1938

Notes by Smith

Fileus 14-16 cm broad, with a slightly depressed disc, the remainder nearly plane, the margin long remaining inrolled and distinctly covered by appressed brownish tomentum <sup>which becomes grayish,</sup> appearing cottony-tomentose under a lens, remainder of surface glabrous, (apparently a marginal area is more or less covered by appressed fibrils at first) surface viscid, dry in age, faintly zoned (but very distinct) with purplish umber zones and paler grayish areas between (almost identical in color with my coll. of L. maculatus, or of L. pyrogalus) often with a sinus on one side. <sup>Context</sup> ~~Flies~~ white, gradually turning to very pale buff, not staining or changing color from milk <sup>Latex</sup> white, copious, hotter than in peckii, staining gills darker ochraceous, ~~tomentium becomes grayish.~~

Gills narrow, close, subdecurrent; "pinkish buff" at first, "cinnamon" or near it in age sometimes spotted with darker brown; many forked, close.

Stipe 3-6 x 2-3 cm, equal hollow colored like young gills or more tan, scrobiculate spotted, dull between spots not changing color markedly when cut.

Spore deposit pure white. Looks like L. maculatus but latex unchanging. (Smith refers to 10521, but I have not found it.)

Notes by Hesler

Spores 6-7.5(8) x 5.5-6.5(7)  $\mu$ , warts 0.2-0.4  $\mu$  high, bands and branches forming a partial or no reticulum. Pleurocystidia 73-96 x 6-10  $\mu$ ,

acuminate-ventricose; cheilocystidia 28-48 x 5-7  $\mu$ , similar. Pileus cuticle an ixocutis, at times the hyphae only partially gelatinized (cap dry in age!) Stipe cuticle a thin ixocutis, at times overlooked; rosettes present.

Same as Sm-10313.

Sm - 10313      LACTARIUS PSEUDOMACULATUS sp. nov.

On soil, under hardwoods, Mt. LeConte, Tenn., 2000 ft.,

August 17, 1938

Notes by Smith

Pileus 10-16 cm broad, plane with a shallowly depressed disc, broadly convex young, margin long remaining inrolled and distinctly covered by appressed brownish tomentum (cottony tomentose under a lens), remainder of surface glabrous, viscid, becoming dry, azonate, or faintly zonate with purplish umber zones alternating with pale, gray zones (colors similar to L. maculatus), often with a sinus on one side. Context white, gradually turning very pale buff (but not staining from latex). Latex copious, white, unchanging, staining the gills in some darker ochraceous, very acrid.

Lamellae subdecurrent, "pinkish buff" young, "cinnamon" or nearly so at maturity, in age more or less "saya brown," unchanging or merely darker ochraceous when bruised, narrow, close, many forked near stipe.

Stipe 3-6(8) cm long, 20-30 mm thick, equal, hollow, somewhat concolorous with the young gills, scrobiculate with polished spots, unpolished elsewhere, not changing color when cut, viscid.

Spores white in deposit, globose to broadly ellipsoid, coarsely reticulate but pattern irregular, very few unconnected warts present; basidia four-spored; pleuro- and cheilocystidia numerous, projecting awl-shaped to fusiform, 50-70 x 7-10  $\mu$  contents usually refractive; cuticle of pileus a thin

gelatinous layer of interwoven hyaline narrow hyphae.

Notes by Hesler

Spores white in deposit, 6-7.5 x 5-6.5  $\mu$ , ellipsoid to subglobose, warts 0.2-0.4  $\mu$  high, bands and branches forming a partial or no reticulum. Basidia 44-48 x 8-10  $\mu$  (2)4-spored. Pleurocystidia (53)62-96 x 6-10  $\mu$ , ventricose-acuminate; cheilocystidia 28-42 x 4-7  $\mu$ , ventricose, tapering. Gill trama of interwoven hyphae. Pileus cuticle an ixocutis, 150-200  $\mu$  thick, hyphae only partially gelatinized; hypodermium none. Stipe cuticle an ixocutis; hypodermium indistinct; rosettes present.

This is characterized by its colors, its white, very acrid, unchanging latex which stains the pinkish to cinnamon gills darker ochraceous (dingy buff-yellowish). It resembles L. maculatus, but the latex color and behavior excludes it; moreover the spores are much smaller and are white.

It is assigned to Sect. Triviales.



*Factarius pseudomaculatus* sp. nov.

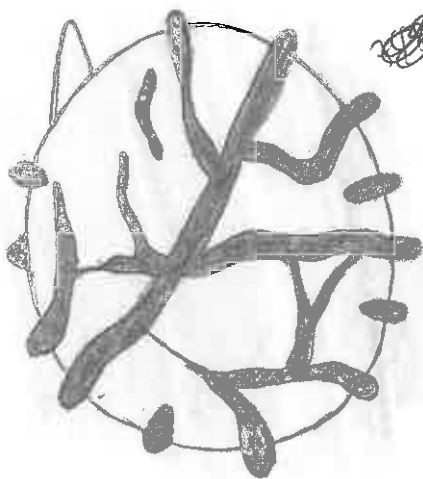
Sm - 10313



Pl - x 1000



Ch - x 1000



750

Spore - x 8000

Sm-61788      LACTARIUS PSEUDO-MUCIDUS sp. nov.

In swamp, Duscheney Avenue (Michigan?), September 3, 1959

Notes by Smith

Pileus 3-6 cm broad, plane or depressed from upturned wavy margin, azonate, fuscous gray on disc, avellaneous on margin, viscid, Taste burning acrid and bitterish. Latex white, unchanging, acrid-bitterish, staining gills brownish. Gills subdecurrent, close, medium broad, pallid buff, staining brownish. Stipe 4-6 cm x 8-11 mm, pallid, slimy, hollow.

Spores dull white.

Notes by Hesler

Spores dull white in deposit, 7-9.5 x 7-8.5  $\mu$ , warts 0.2-0.3(0.5)  $\mu$ , bands forming a partial reticulum. Pleurocystidia 60-94 x 7-11  $\mu$ , acuminate; cheilocystidia 40-60 x 5-10  $\mu$ , similar. Pileus cuticle an ixo-lattice; hypoderm brown. Stipe cuticle a narrow ixocutis; rosettes few.

LACTARIUS PTEROSPORUS Romagn.

Communicated by H. Romagnesi; leg. September 8, 1948. Revue de Mycologie

14: 108-110. 1949

TYPE

Spores (in deposit, about F, Neuhoﬀ), 9-11 x 8-10  $\mu$ , globose or subglobose, sometimes short-ellipsoid, warts 1.0-2.5  $\mu$  high, with one or two bands often arranged more or less zebra-like, with scattered amyloid material, distinct webbing (wing-like) present. Basidia 48-54 x 10-12  $\mu$ , 4-spored. Pleurocystidia none; pseudocystidia filamentous, apices often more or less branched, scattered; cheilocystidia 28-32 x 5-6  $\mu$ , ventricose, scattered. Gill trama of subparallel hyphae. Pileus trama somewhat vesiculose. Pileus cuticle: (1) a brown zone of irregularly-shaped cells 50-70  $\mu$  thick; (2) bearing a turf of pileocystidia, 25-43 x 3-8  $\mu$ , filamentous, ventricose, clavate, repent or at times erect; (3) a distinct, colorless, hyphal, subcuticular zone, 40-50  $\mu$  thick, gelatinous to subgelatinous. Stipe cuticle of more or less repent hyphae bearing a turf of colorless caulocystidia, 34-50 x 2-5  $\mu$ , filamentous to sub-ventricose, often broken; rosettes present.

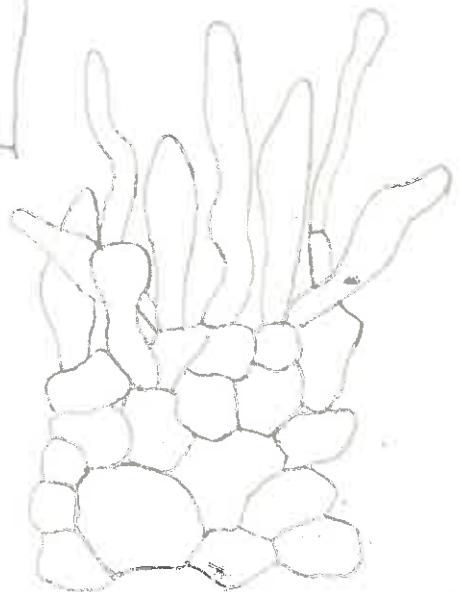
# *Lactarius pterosporus Pomagnesi* Type



Pseudo -  
 x 1000



ch -  
 x 1000

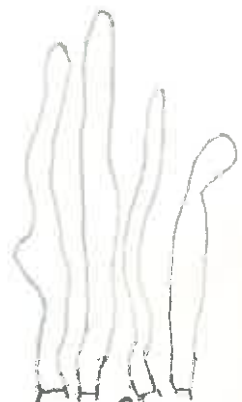


Pileus cuticle +  
 turf - x 1000



358

Spore - x 8000



Canals - x 1000

van Waveren - a            LACTARIUS PTEROSPORUS, Romagn.

Near Chichester, Sussex, British Isles, September 2, 1967.

Notes by van Waveren

Cap 7 cm, velvety, warm brown, darker than 7.5 YR, flesh white, turning pink-red 5 minutes after being cut. Latex white, not acrid, staining gills brown-red. Gills somewhat distant, slightly decurrent.

Stem 5 cm x 15 mm (apex) x 10 mm (base), pale brown (cafe'-au-lait color), more or less 10 YR 5/4, reddish at extreme base.

Notes by Hesler

Spores 7.5-10 x 7.5-10 u, globose or subglobose, usually with webbing, warts 1.4-2.5 u, a band which more or less surrounds the spore, with lines and occasional isolated warts, not forming a reticulum. Basidia 48-57 x 10-12 u, 4-spored. Pleurocystidia none; pseudocystidia filamentous; cheilocystidia 33-44 x 4-6 u, more or less cylindric. Pileus cuticle a brown cell zone, bearing a turf of colorless, cylindric pileo, 22-38 x 3-7 u. Stipe cuticle of interwoven hyphae, bearing a turf of colorless cylindric caulocystidia, 18-40 (66) x 2.5-6 u; rosettes present. Clamps none.

van Waveren - b LACTARIUS PTEROSPORUS, Romagn.

Sussex, near Chichester, British Isles, September 5, 1967.

Notes by van Waveren

Cap 4.5-6 cm, felty-velvety, azonate, warm brown (one 10 YR 5/4, other paler), slightly veined half way, orange-red where bruised. Flesh orange-red where bruised. Odor of pelargonium or sweet-honey. (Latex not described).

Gills 3 mm broad, slightly decurrent, yellow-brown, red on bruising almost immediately, fairly crowded.

Stipe whitish to mainly very pale brown (M 10 YR 8/3).

Notes by Hesler

Micro characters as in van Waveren a (September 2, 1967).

Van Waveren - c  
(Tenn - 35541)

LACTARIUS PTEROSPORUS, Romagn.

British Isles, near Bewdley, Wyre Forest, under oak, September 5, 1967.

Notes by van Waveren

Cap 4-6 cm, felty and grey-ochre, cafe'-au-lait, funnel-shaped. Latex white, acrid, after a long time pink-red, and flesh turns pink rapidly.

Gills decurrent, even strongly so, crowded, ochre (as in pyrogalus), staining brownish red.

Stipe (no notes).

Notes by Hesler

Micro characters as in van Waveren a. Lactifers conspicuous in pileus trama, 6-12  $\mu$  broad.

Bas-852

LACTARIUS PTEROSPORA Romagn.

Under Fagus or Carpinus, Foret de Fenetrance, France, leg.-det. Bas,

August 21, 1955

Notes by Bas (Transl. by Donk)

Cap 32 mm, flat-convex, ocher ("café au lait"), velutinous.

Flesh white, margin soon vinaceous pink, center of stalk (where injured) red. Latex sparse, acrid, discolouring red.

Gills ocher cream, thin, crowded, with a few red spots, narrow.

Stipe 50 x 9 mm, pale cream with orange-red spots.

Notes by Hesler

Spores 8-11 x 7.5-9  $\mu$ , broadly ellipsoid to subglobose, warts 0.6-2.4  $\mu$ , bands few, often extending around spore, webbing present. Pleurocystidia none; pseudocystidia filamentous, upper portion often crooked, 3-5  $\mu$  broad; cheilocystidia 27-38 x 3-5  $\mu$ , subventricose or subcylindric, extending up sides 250  $\mu$ . Pileus cuticle a zone of cells bearing on their surface a turf of pileocystidia 32-67 x 3-6  $\mu$ , resting on a colorless subcuticular zone of subgelatinous hyphae.



Orton-2994

LACTARIUS PTEROSPORUS

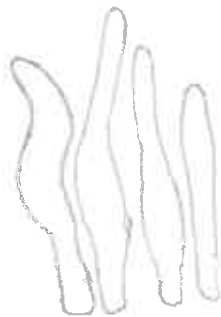
Juniper Hill 5, Surrey, August 24, 1967 (labelled Lactarius pterosporus?)

Spores 7.5-11 x 7.5-10  $\mu$ , warts 1.0-2.5  $\mu$  high, bands one or two across the spore, with shorter ones (more or less zebra-like), webbing evident. Pleurocystidia none; cheilocystidia 28-40 x 4-6  $\mu$ , irregularly ventricose to nearly flask-shaped, widely scattered (absent in many sections). Gill trama of irregular cells. Pileus trama vesiculose, hyphae loosely interwoven. Pileus cuticle a brown zone of cells bearing a turf of pileocystidia. Stipe cuticle of interwoven hyphae, bearing a turf of caulocystidia (as in Type); rosettes present.

Superficially and microscopically this agrees with the Type.

*Sactarius pterosporus*

Oxton - 1994



Ch - x 1000

Bas-5025

LACTARIUS PTEROSPORUS Romagn.

Near Rocheford, Belgium, September 29, 1968, det. Bas

Notes by Bas (in English)

Cap 55-85 mm, irregularly convex, centrally depressed, small-papillate, margin incurved and lobed, becoming infundibuliform, radiately rugose, granular-micaceous, dry, beige brown on an ochraceous background. Odor when cut rather strong fruity (sl. coconut-like), taste mild. Flesh white, turning bright pink then orange-flesh-pink.

Gills short-decurrent, ochraceous (Munsell 10 YR 7/6), crowded (12-15 per cm half way), narrow (more or less 5 mm), pink spotted where bruised.

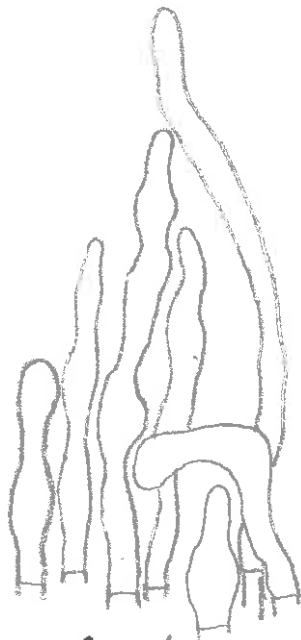
Stipe 35-40 x 13-15 mm, slightly tapering down, paler than cap, pale cream to dingy ochraceous cream, brownish spotted where bruised.

Spore with wing-like bands.

Notes by Hesler

Spores 7.5-10 x 7-10  $\mu$ , globose or subglobose, warts 0.8-2.0  $\mu$  high, bands widely spaced, giving appearance of encircling the spore, warts often tapering at base, with one or more prominent wings. Pleurocystidia none; cheilocystidia 28-50 x 3-6  $\mu$ , fusoid, cylindric. Pileus cuticle a turf of pileocystidia, 25-45 x 3-5  $\mu$ , cylindric, ventricose, arising from a chain of 2-3 cells, all resting on an apparent gelatinous or subgelatinous zone. Stipe cuticle a turf of cylindric caulocystidia, 30-70 x 3-5  $\mu$ , often more or less matted down, arising from interwoven hyphae; (in some collections, caulocystidia seem to have worn away) rosettes present. Clamps none.

*Pectarius pterosporus*  
Bas - 5025



Caulo-turf  
x 1000

30385

LACTARIUS PTEROSPORUS Romagn.

Neuchatel, Switzerland, leg. Huijsman, September 7, 1960

Notes by Hesler

Spores 7.5-10 x 7-10  $\mu$ , subglobose to broadly ellipsoid, warts 0.8-1.5  $\mu$  high, with 1-3 more or less zebra-like bands, a few fine lines, no reticulum. Basidia 38-44 x 8-10  $\mu$ , 4-spored. Pleurocystidia none; cheilocystidia 28-50 x 3-5  $\mu$ , subfusoid to subcylindric, rarely extending up the sides at all. Gill trama interwoven. Pileus trama vesiculose. Stipe trama with rosettes. Pileus cuticle a turf of pileocystidia arising from a chain of 2-3 cells of hyphae.

Notes by Huijsman

Milk immediately pink and taste acrid like acris. I think I sent you the right species. There is another species (variety?) in the Jura with crowded gills (what excludes L. ruginosus), with the same spores but with milk only slowly becoming pinkish. I never studied it critically and sought in vain for it during the last three (very) poor years.

*Sactarius pterosporus* sensu Comagnessi

30385

[Pl. 0]

ch - x 2000

358



ch - x 1000

rest plant

Furf

epithelial zone

subgelatinous subepithelium

Pileus cuticle - x 1000



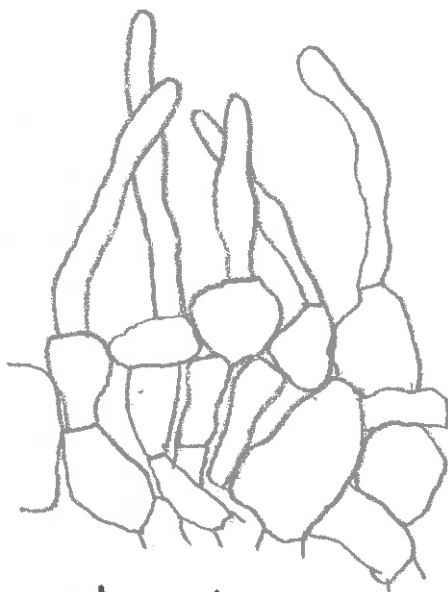
358

Spore - x 8000

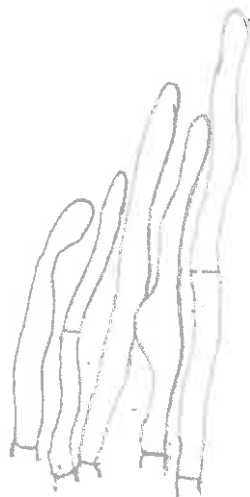
[Stipe not available]

*Lactarius pterosporus*

30385



Pileus turf -  $\times 1000$   
(cuticle)



Gills  $\times 1000$